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Abstract

The Wide Range Achievement Test (WRAT) yields raw sccres, standard scores, and percentile sccres for reading skill, spelling skill, and arithmetic computaticnal skill, and is applicable for determining student ccmpetence in these areas fcr pre-kindergarten throcugh ccllege level. Because national norms cn the 1965 revised WRAT are nct, however, completely relevant for lccal usage, rural and semi-urban Connecticut lccal beginning, middle, and end of year norms have been compiled and are presented in this dccument, fcr grades cne through twelve. Sampling for the establishment of these norms was accomplished by assigning a number to every child in each grade (1 through 12) in 17 public and private schools in a 6-town regicn of Ncrthwestern Ccnnecticut. Subsequently, 35 numbers were randcmly selected for each grade fcr each of the 3 sample grcups (beginning, middle, and end of year), resulting in 36 separate sets of randcmly selected numbers or a total sample in excess of 1,200 students. Included in this report are lccal percentile equivalents to national ncrm grade scores, as well as tables which report the mean and standard deviaticn fcr the sample for all 3 subject areas on the WRAT, by grade, as well as the average and expected deviations cr grade span. A related document is RC 003 427. (EV)

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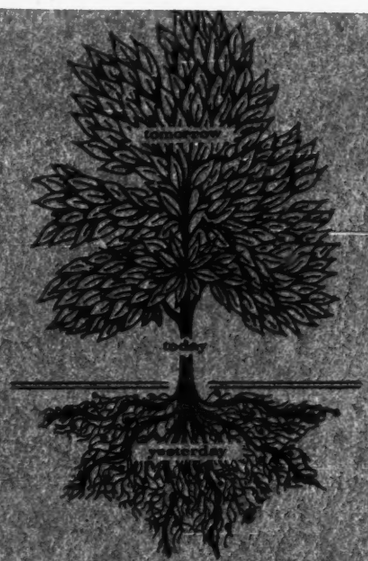
NORTHEASTERN EDUCATIONAL PLACEMENT GUIDE IN READING, ARITHMETIC & SPELLING (LOCAL NORMS 1968-1971) AS MEASURED BY THE WIDE RANGE ACHIEVEMENT TEST 1965 REVISION



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NORTHEASTERN EDUCATIONAL PLACEMENT GUIDE IN READING, ARITHMETIC & SPELLING (LOCAL NORMS 1968-1971) AS MEASURED BY THE WIDE RANGE ACHIEVEMENT TEST 1965 REVISION

Submitted By

WINCHESTER BOARD OF EDUCATION
(GRANTEE)
c/o C. E. S. C.
Winsted, Connecticut 06098

RURAL SEMI-URBAN CONNECTICUT LOCAL NORMS

BEGINNING - MIDDLE - END OF YEAR

For The

WIDE RANGE ACHIEVEMENT TEST

1965 Revision

By

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INTRODUCTION

While it is true that the material in this study has been extracted from an area in Northwestern Connecticut, the sample size and population characteristics are such that this author feels that the results could quite conceivably be generalized to most rural semi-urban New England and probably the Atlantic States as well. It has long been felt that national norms are not completely relevant for local usage, the Eastern states especially being a culturally encapsulated region with a background of almost three hundred years of civilized accomplishment. Local students consistently tend to score higher on verbal skills and lower on mathematics usage when compared to the "average" student across the country. While publication of such spurious accomplishments tends to make the local superintendent of schools look good at test reporting time, they serve little purpose for the grass roots educator, the local guidance counselor or the classroom teacher. He needs to know exactly how Johnny compares with Jimmy in some areas, and with Susie in others, especially if Johnny is new to the classroom - and the data from his previous school reports different testing materials and scoring methods from that used in his new placement.

The 1965 edition of the Wide Range Achievement Test, (WRAT), is an instrument which could easily be used by any counselor or teacher with a modicum of training, ranges from pre-kindergarten to college graduation on one double fold piece of paper, and yields raw scores, standard scores and percentile scores in the areas of reading, spelling, and arithmetic computation, (three critical factors which must be considered in any academic placement). Unfortunately, here too the national norms for the WRAT are too high in some places, and do not reveal a true picture in others. How much simpler it would have been if a local norms table could be available for the use of the Wide Range Achievement Test!

It is precisely for the above reasons that the research presented in this publication took place: that the local counselor or teacher might have a wide ranged instrument which was easy to use and score, would take the major critical factors into consideration, and would materially assist in the placement of students for instructional purposes - thus saving a great deal of time and frustration on the part of both the local educator and the student.

ORIGIN OF THE DATA

Every child in each grade in both public and private schools, grades one through grades twelve in the seventeen schools of a six town region in Northwestern Connecticut was assigned a number. The numbers ran a serial sequence, from 001-up, for each grade. Thirty-five (35), numbers were chosen randomly, from One Million Random Digits, (Rand Corporation), for each grade, for each sample, beginning - middle and end of year, producing thirty-six, (36), separate sets of randomly chosen numbers. Referred children who had begun to receive service from the Cooperative Educational Services Center, (CESC), were not included in the sample, nor were children tested more than once, to prevent contamination of the data due to the child's experience with the instrument, (Total N-1200).

The children corresponding to the chosen numbers for their grade were tested on the WRAT at the appropriate point for their particular sample, by the psychological and guidance services and learning resources sub-sections of the CESC. Said staff members scored and checked each other's results, and distribution charts were made. Along with the translation of national normative data into local New England regional norms, an item-analysis for each example on the mathematical sub-test was carried out for all three time samples, the beginning, middle and end of year periods, (reported in another publication).

Cumulative percentile curves were graphed. The resultant tables are direct read-outs of said graphs at the .2, .4, and .7 mark in the school year for each grade respectively.

SPECIAL CONDITIONS OF DESIGN

Since the 1965 WRAT is now presented in two levels, as a part of the research design Level I was administered up through grade five, and Level II was administered from grade six and beyond, for it was felt that the appropriate age level break should happen somewhere between the end of the fifth grade and the beginning of the sixth grade if the children were progressing more or less normally in school. Admittedly this is not consistent with the original standardization of the 1965 WRAT, but it was felt to be more useful for local purposes, since the item of interest was the achievement by grade, within the area schools, rather than the achievement of the individual child as an individual.

In the following pages can be found local percentile equivalents to national norm grade scores for each grade, one through twelve, as well as tables which report the mean ($\bar{X}$) and standard deviations (s) for the sample for all three subject areas on the WRAT, by grade, as well as the average and expected deviations, or grade span (Gs)*, for reading and spelling, which is not specifically reported in the WRAT manual.

* Grade span (Gs) is the distance, in equivalent school years, between the basal score (the score below which all items are considered as passed), and the maximal score (the score above which all items are failed). This researcher has found the measure of Gs to be of valuable assistance in many individual cases. An extremely wide span, more than plus or minus one sGs may be indicative of some problem areas, while an extremely narrow span may have other hints for the teacher.

USE OF THE TABLES

LOCAL PERCENTILES

Score the test as directed by the WRAT manual. Compute the testing date and grade scores in each area, as shown in the WRAT manual. In the table below, go to the column headed by the appropriate testing month of the school year, as computed above, and adjust each received grade score by the constant in the table, adding or subtracting as indicated.

	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
Beginning Norms	+0.2	+0.1	+0.0	-0.1	-0.2					
Mid-Year Norms			+0.2	+0.1	0.0	-0.1	-0.2			
End-Year Norms						+0.2	+0.1	0.0	-0.1	-0.2

Enter the appropriate grade level table with the adjusted scores, and read the appropriate local percentile equivalents.

MEANS AND DEVIATION TABLES

Adjusted scores should not be used with the means and deviations tables. The tables indicate only the situation that existed at that time, and can serve only as a rough comparison, except in those cases tested during the comparable month (.2, .4 or .7) that said tables were derived.

BEGINNING-YEAR .2 NORMS

BEGINNING-YEAR STATISTICS (.2)

WIDE RANGE ACHIEVEMENT TEST

RANDOM SAMPLE

GRADE	READING				SPELLING				ARITHMETIC	
LEVEL	$\bar{X}$	s	$\bar{X}$Gs	sGs	$\bar{X}$	s	$\bar{X}$Gs	sGs	$\bar{X}$	s
1	.84	.47	.83	.55	1.25	.275	.2	.373	1.39	.467
2	3.17	.97	2.00	1.54	2.53	.69	1.22	.95	2.64	.453
3	4.36	1.28	2.75	2.03	3.62	.80	1.50	1.13	3.59	.60
4	5.35	2.14	3.38	2.65	4.24	1.16	1.74	1.28	4.05	.61
5	6.60	1.94	3.67	2.98	5.59	1.29	2.09	1.36	4.83	.74
6	7.48	2.26	5.01	2.05	5.96	1.46	2.76	1.61	5.66	1.21
7	9.32	3.74	6.25	3.68	7.05	2.04	3.62	2.38	6.88	2.11
8	9.98	4.01	6.58	3.71	8.09	2.46	4.45	1.83	7.42	1.64
9	10.64	3.23	5.27	3.47	8.11	2.27	3.85	1.90	7.65	2.39
10	12.43	3.53	5.56	3.68	10.08	2.57	4.56	2.29	8.55	1.89
11	12.51	2.57	4.18	3.84	9.65	2.31	4.44	2.27	9.09	2.22
12	13.93	3.07	3.92	3.29	10.29	2.33	6.49	3.04	8.95	2.58

$\bar{X}$: Mean (Average Score)

s : Standard Deviation

$\bar{X}$Gs : Mean Grade Span (Average Grade Span)

sGs : Standard Deviation of Grade Span

For example, the average 3rd grader received a reading score of 4.3, and measured about 2.7 years between the basal and maximal score on Reading. Sixty-seven percent of the 3rd graders had reading scores between 3.0 and 6.6. (Use the same approach to analyse the Spelling scores and Arithmetic scores.)

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE I

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
2.8-2.6	99	2.2-2.1	99	2.4	99
2.7-2.1	98	2.0-1.9	98	2.3	98
2.0-1.8	97	1.8-1.7	97	2.2	96
1.7-1.6	96	1.6	96	2.1	93
1.5	94	1.5	93	2.0	91
1.4	92	1.4	90	1.9	90
1.3	90	1.3	80	1.8	83
1.2	74	1.2	50	1.7	79
1.1	61	1.1	13	1.6	73
1.0	46	1.0	12	1.5	69
K.9	38	K.9	11	1.4	63
K.8	31	K.8	10	1.3	53
K.7	23	K.7	7	1.2	43
K.6	20	K.6	3	1.1	35
K.5	16	K.5-K.4	2	1.0	26
K.4	14	K.3-K.2	1	K.9	20
K.3	10			K.8	18
K.2	7			K.7	16
K.1	3			K.6	12
K.0	1			K.5	6
				K.4	5
				K.3	3
				K.2	2
				K.1	1

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 2

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
5.1	99	4.5	99	3.9	99
5.0	97	4.4	98	3.8-3.7	98
4.9	94	4.3	97	3.6	97
4.8	91	4.2 - 4.1	96	3.5	96
4.7	90	4.0 - 3.9	95	3.4	95
4.6	89	3.8 - 3.7	94	3.3	92
4.5	88	3.6	92	3.2	91
4.4	86	3.5	90	3.1	89
4.3	84	3.4	88	3.0	88
4.2	82	3.3	87	2.9	82
4.1	80	3.2	86	2.8	77
4.0	79	3.1	85	2.7	70
3.9	77	3.0	82	2.6	65
3.8	75	2.9	78	2.5	42
3.7	73	2.8	74	2.4	40
3.6	71	2.7	70	2.3	17
3.5	68	2.6	66	2.2	10
3.4	64	2.5	62	2.1	5
3.3	60	2.4	55	2.0	4
3.2	59	2.3	48	1.9-1.8	3
3.1	58	2.2	40	1.7-1.6	2
3.0	57	2.1	30	1.5-1.3	1
2.9	51	2.0	23		
2.8	47	1.9	14		
2.7	42	1.8	11		
2.6	37	1.7	8		
2.5	33	1.6	5		
2.4	28	1.5	4		
2.3	23	1.4	3		
2.2	18	1.3	2		
2.1	14	1.2	1		
2.0	12				
1.9	11				
1.8	10				
1.7	9				
1.6	7				
1.5	6				
1.4	5				
1.3	3				
1.2	2				
1.1	1				

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 3

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
7.2	99	5.5	99	5.5	99
7.1	98	5.4	97	5.4	98
7.0	97	5.3	95	5.3	97
6.9	96	5.2	93	5.2	96
6.8	95	5.1	92	5.1-4.9	95
6.7	94	5.0	91	4.8-4.6	94
6.6	93	4.9	90	4.5-4.3	93
6.5-6.4	92	4.8	89	4.2	90
6.3-6.2	91	4.7	88	4.1	87
6.1-6.0	90	4.6	87	4.0	84
5.9	88	4.5	85	3.9	80
5.8	86	4.4	84	3.8	73
5.7	84	4.3	82	3.7	68
5.6	82	4.2	81	3.6	60
5.5	80	4.1	79	3.5	52
5.4	78	4.0	78	3.4	46
5.3	77	3.9	74	3.3	35
5.2	76	3.8	71	3.2	25
5.1	75	3.7	68	3.1	18
5.0	73	3.6	60	3.0	14
4.9	70	3.5	51	2.9	10
4.8	68	3.4	43	2.8	6
4.7	63	3.3	40	2.7	5
4.6	58	3.2	37	2.6	4
4.5	53	3.1	34	2.5	3
4.4	52	3.0	29	2.4-2.3	2
4.3	51	2.9	24	2.2	1
4.2	50	2.8	18		
4.1	48	2.7	16		
4.0	45	2.6	13		
3.9	43	2.5	11		
3.8	39	2.4	9		
3.7	35	2.3	7		
3.6	31	2.2	4		
3.5	30	2.1	2		
3.4	29	2.0	1		
3.3	28				
3.2	24				
3.1	21				
3.0	18				
2.9	15				
2.8	12				
2.7	9				
2.6	7				

READING (Cont.)	
Gr. Score	Percentile
2.5	6
2.4	5
2.3	3
2.2	2
2.1	1

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 4

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
13.4-12.6	99	6.5-6.4	99	5.1	99
12.5-11.6	98	6.3	98	5.0	96
11.5-10.6	97	6.2	96	4.9	93
10.5- 9.4	96	6.1	95	4.8	90
9.3- 9.0	95	6.0	94	4.7	87
8.9- 8.8	94	5.9	93	4.6	84
8.7- 8.4	93	5.8	91	4.5	81
8.3- 8.2	92	5.7	89	4.4	75
8.1	91	5.6	87	4.3	71
8.0- 7.9	90	5.5	85	4.2	66
7.8	89	5.4	83	4.1	54
7.7- 7.6	88	5.3	81	4.0	43
7.5- 7.4	87	5.2	78	3.9	33
7.3	86	5.1	75	3.8	27
7.2	84	5.0	72	3.7	22
7.1	83	4.9	71	3.6	18
7.0	82	4.8	70	3.5	17
6.9	81	4.7	69	3.4	16
6.8	80	4.6	64	3.3	15
6.7- 6.6	79	4.5	59	3.2	12
6.5- 6.4	78	4.4	54	3.1	9
6.3	76	4.3	52	3.0	6
6.2	75	4.2	50	2.9-2.8	5
6.1	74	4.1	48	2.7-2.6	4
6.0	73	4.0	43	2.5-2.4	3
5.9	72	3.9	38	2.3	2
5.8	70	3.8	33	2.2-2.1	1
5.7	67	3.7	31		
5.6	65	3.6	30		
5.5	62	3.5	28		
5.4	60	3.4	27		
5.3	57	3.3	25		
5.2	55	3.2	24		
5.1	53	3.1	22		
5.0	50	3.0	20		
4.9	48	2.9	18		
4.8	46	2.8	16		
4.7	44	2.7	14		
4.6	42	2.6	11		
4.5	41	2.5	9		
4.4	39	2.4	7		
4.3	36	2.3	5		
4.2	34	2.2	4		
4.1	32	2.1-2.0	3		
4.0	30	1.9-1.7	2		
(Continued on next page)		1.6-1.3	1		

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 4 (Cont.)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
3.9	27				
3.8	26				
3.7	24				
3.6	23				
3.5	21				
3.4	20				
3.3	18				
3.2	17				
3.1	16				
3.0	14				
2.9	13				
2.8	11				
2.7	10				
2.6	8				
2.5	7				
2.4	6				
2.3	4				
2.2	3				
2.1	1				

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

Grade 5

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
12.9-12.1	99	13.9-12.3	99	6.5- 6.4	99
12.0-11.2	98	12.2-10.7	98	6.3	98
11.1-10.2	97	10.6- 8.8	97	6.2	97
10.1- 8.9	96	8.7- 6.9	96	6.1	96
8.8	95	6.8	94	6.0- 5.9	95
8.7	93	6.7	92	5.8- 5.7	94
8.6	92	6.6	90	5.6- 5.5	93
8.5	91	6.5	88	5.4	87
8.4	90	6.4	87	5.3	78
8.3	89	6.3	82	5.2	70
8.2- 8.1	88	6.2	77	5.1	60
8.0- 7.9	87	6.1	71	5.0	50
7.8	83	6.0	65	4.9	41
7.7	79	5.9	61	4.8	39
7.6	75	5.8	56	4.7	37
7.5	71	5.7	52	4.6	35
7.4	67	5.6	48	4.4	27
7.3	65	5.5	45	4.3	22
7.2	63	5.4	41	4.2	21
7.1	61	5.3	39	4.1	20
7.0	59	5.2	36	4.0	19
6.9	58	5.1	33	3.9	16
6.8	53	5.0	31	3.8	12
6.7	49	4.9	29	3.7	9
6.6	44	4.8	27	3.6	8
6.5	40	4.7	26	3.5	7
6.4	35	4.6	25	3.4	6
6.3	33	4.5	24	3.3	4
6.2	32	4.4	22	3.2	3
6.1	31	4.3	21	3.1	1
6.0	30	4.2	20		
5.9	29	4.1	18		
5.8	27	4.0	17		
5.7	26	3.9	16		
5.6	24	3.8	15		
5.5	23	3.7	14		
5.4	22	3.6	13		
5.3	21	3.5	11		
5.2- 5.1	20	3.4	10		
5.0- 4.9	19	3.3	9		
4.8	17	3.2- 3.1	8		
4.7	16	3.0- 2.9	6		
4.6	15	2.8	5		
4.5	13	2.7- 2.6	4		
4.4	12	2.5	3		
		2.4- 2.3	2		
		2.2	1		

READING (cont.)

Gr. Score	Percentile
4.3	11
4.2- 4.1	10
4.0- 3.9	9
3.8- 3.5	8
3.4- 3.2	7
3.1- 2.9	6
2.8	5
2.7- 2.6	4
2.5	3
2.4- 2.3	2
2.2	1

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 6

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
16.2-15.2	99	9.6-9.2	99	8.3-8.2	99
15.1-13.9	98	9.1-8.9	98	8.1	98
13.8-12.8	97	8.8-8.6	97	8.0-7.9	97
12.7-11.7	96	8.5	96	7.8	96
11.6-11.4	95	8.4-8.3	95	7.7	95
11.3-11.0	94	8.2-8.1	94	7.6-7.5	94
10.9-10.7	93	8.0-7.9	93	7.4-7.3	93
10.6-10.4	92	7.8	92	7.2-7.1	92
10.3-10.0	91	7.7	91	7.0	91
9.9- 9.7	90	7.6	90	6.9-6.8	90
9.6- 9.5	89	7.5	88	6.7	84
9.4	88	7.4	86	6.6	77
9.3- 9.2	87	7.3	84	6.5	70
9.1	86	7.2	82	6.4	63
9.0	85	7.1	80	6.3	61
8.9- 8.7	84	7.0	77	6.2	59
8.6	83	6.9	75	6.1	57
8.5	82	6.8	73	6.0	55
8.4	81	6.7	71	5.9	53
8.3	80	6.6	69	5.8	51
8.2	79	6.5	67	5.7	48
8.1	77	6.4	64	5.6	45
8.0	76	6.3	62	5.5	42
7.9	75	6.2	60	5.4	38
7.8- 7.7	74	6.1	58	5.3	35
7.6	71	6.0	55	5.2	33
7.5	68	5.9	53	5.1	31
7.4	66	5.8	50	5.0	28
7.3	63	5.7	47	4.9	27
7.2	60	5.6	45	4.8	25
7.1	58	5.5	40	4.7	23
7.0	55	5.4	36	4.6	22
6.9	52	5.3	31	4.5	21
6.8	50	5.2	26	4.4	20
6.7	48	5.1	22	4.3	19
6.6	42	5.0	20	4.2	17
6.5	37	4.9	19	4.1	14
6.4	32	4.8	18	4.0	11
6.3	27	4.7	17	3.9	8
6.2	22	4.6	16	3.8	6
6.1	20	4.5	15	3.7	5
6.0	18	4.4	14	3.6-3.5	4
5.9	16	4.3	13	3.4-3.3	3
5.8	14	4.2	12	3.2-2.8	2
5.7	12	4.1	11	2.7-2.4	1

(Continued on next page)

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 6 (Cont.)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
5.6	11	4.0	10		
5.5-5.4	10	3.9	9		
5.3-5.2	9	3.8	8		
5.1	8	3.7	7		
5.0	7	3.6	6		
4.9-4.8	6	3.5-3.3	5		
4.7	5	3.2-3.0	4		
4.6	4	2.9-2.6	3		
4.5-4.4	3	2.5-2.4	2		
4.3	2	2.3-2.2	1		
4.2-4.1	1				

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 7

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.4-17.9	99	11.9-11.8	99	12.4-12.0	99
17.8-17.7	98	11.7-11.5	98	11.9-11.7	98
17.6-17.4	97	11.4-11.2	97	11.6-11.3	97
17.3-16.9	96	11.1-10.9	96	11.2-10.9	96
16.8-16.2	95	10.8-10.7	95	10.8-10.6	95
16.1-15.7	94	10.6-10.5	94	10.5-10.3	94
15.6-15.5	93	10.4	93	10.2- 9.9	93
15.4-15.3	92	10.3-10.2	92	9.8- 9.7	92
15.2	91	10.1-10.0	91	9.6	91
15.1-15.0	90	9.9	90	9.5- 9.4	90
14.9-14.8	88	9.8	89	9.3- 9.1	89
14.7-14.4	87	9.7	88	9.0- 8.7	88
14.3-14.0	86	9.6	87	8.6- 8.4	87
13.9-13.6	85	9.5	86	8.3	85
13.5-13.2	84	9.4- 9.3	85	8.2	83
13.1-12.8	83	9.2	84	8.1	81
12.7-12.4	82	9.1	83	8.0	79
12.3-12.1	81	9.0	82	7.9	78
12.0	80	8.9	81	7.8	75
11.9-11.8	79	8.8	80	7.7	73
11.7	78	8.7- 8.6	79	7.6	71
11.6-11.5	77	8.5- 8.4	78	7.5	68
11.4	76	8.3	77	7.4	66
11.3-11.2	75	8.2	76	7.3	63
11.1	74	8.1	75	7.2	61
11.0-10.9	73	8.0	73	7.1	59
10.8	72	7.9	72	7.0	56
10.7-10.6	71	7.8	71	6.9	54
10.5	70	7.7	70	6.8	50
10.4-10.3	69	7.6	69	6.7	45
10.2	68	7.5	68	6.6	41
10.1	67	7.4	66	6.5	37
10.0	66	7.3	62	6.4	33
9.9	65	7.2	59	6.3	30
9.8	64	7.1	55	6.2	28
9.7	63	7.0	52	6.1	25
9.6	62	6.9	48	6.0	23
9.5	61	6.8	46	5.9	21
9.4	60	6.7	44	5.8-5.7	20
9.3	59	6.6	43	5.6	19
9.2	58	6.5	41	5.5-5.4	18
9.1	57	6.4	39	5.3	17
9.0	56	6.3	36	5.2	16
8.9	55	6.2	34	5.1	15
8.8	54	6.1	32	5.0	14
8.7	53	6.0	30	4.9	13

(Continued on next page)

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 7 (Cont.)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
8.6	52	5.9	27	4.8	12
8.5	51	5.8-5.7	26	4.7	11
8.4	50	5.6	25	4.6	10
8.3-8.2	49	5.5-5.4	24	4.5- 4.4	9
8.1-8.0	48	5.3	23	4.3- 3.4	8
7.9	47	5.2	22	3.3- 2.8	7
7.8	46	5.1	20	2.7- 1.7	6
7.7-7.6	45	5.0	19	1.6- k.7	5
7.5	42	4.9	18	k.6-pk.8	4
7.4	40	4.8	16	pk.7- n.9	3
7.3	38	4.7	13	n.8- n.6	2
7.2	36	4.6	11	n.5- n.3	1
7.1	33	4.5	9		
7.0	31	4.4	6		
6.9	29	4.3-4.0	5		
6.8	26	3.9-3.7	4		
6.7	24	3.6-3.4	3		
6.6	23	3.3	2		
6.5	21	3.2	1		
6.4	20				
6.3	19				
6.2	18				
6.1	16				
6.0	15				
5.9	14				
5.8	12				
5.7-5.5	11				
5.4-5.2	10				
5.1-4.9	9				
4.8	8				
4.7-4.6	7				
4.5	6				
4.4-4.3	5				
4.2	4				
4.1-4.0	3				
3.9-3.2	2				
3.1-2.5	1				

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 8

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.6-18.5	99	13.7-13.5	99	12.9-12.7	99
18.4-18.1	98	13.4-13.2	98	12.6-12.5	98
18.0-17.9	97	13.1-13.0	97	12.4-12.3	97
17.8-17.2	96	12.9-12.8	96	12.2-11.8	96
17.1-16.6	95	12.7-12.6	95	11.7-11.3	95
16.5-15.8	94	12.5-12.3	94	11.2-10.8	94
15.7-15.6	93	12.2-12.1	93	10.7-10.3	93
15.5	92	12.0-11.8	92	10.2- 9.8	92
15.4-15.3	91	11.7-11.5	91	9.7- 9.3	91
15.2	90	11.4-11.3	90	9.2- 9.1	90
15.1-15.0	89	11.2-11.1	89	9.0	89
14.9	88	11.0-10.9	88	8.9- 8.8	88
14.8-14.7	87	10.8	87	8.7	87
14.6	86	10.7	86	8.6	86
14.5-14.4	85	10.6	85	8.5	84
14.3	84	10.5	84	8.4	83
14.2	82	10.4	83	8.3	82
14.1	81	10.3-10.2	82	8.2	81
14.0	80	10.1	80	8.1	80
13.9	78	10.0	78	8.0	79
13.8	77	9.9	77	7.9	77
13.7	76	9.8	76	7.8	76
13.6-13.2	75	9.7	73	7.7	72
13.1-12.7	74	9.6	72	7.6	67
12.6-12.3	73	9.5	70	7.5	62
12.2-12.1	72	9.4- 9.3	69	7.4	57
12.0-11.9	71	9.2- 9.0	68	7.3	52
11.8-11.6	70	8.9- 8.8	67	7.2	50
11.5	69	8.7	65	7.1	48
11.4	68	8.6	63	7.0	46
11.3	66	8.5	60	6.9	43
11.2	65	8.4	58	6.8	41
11.1	63	8.3	56	6.7	36
11.0	62	8.2	54	6.6	31
10.9	61	8.1	52	6.5	27
10.8-10.7	60	8.0	50	6.4	23
10.6-10.5	59	7.9	48	6.3	17
10.4-10.2	58	7.8	46	6.2	16
10.1	57	7.7	44	6.1	13
10.0	55	7.6	42	6.0	11
9.9	54	7.5	40	5.9	9
9.8	53	7.4	38	5.8	8
9.7	52	7.3	36	5.7	7
9.6	51	7.2	35	5.6- 5.5	6
9.5	50	7.1	34	5.4- 5.3	5
9.4	49	7.0	33	5.2- 5.0	4

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WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 8 (Cont.)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
9.3	48	6.9	31	4.9-4.8	3
9.2	47	6.8	30	4.7-4.5	2
9.1	46	6.7	29	4.4-4.3	1
9.0-8.9	45	6.6	28		
8.8	44	6.5	27		
8.7	43	6.4	26		
8.6	42	6.3	25		
8.5	40	6.2	24		
8.4	39	6.1	22		
8.3	38	6.0	21		
8.2	36	5.9	20		
8.1	35	5.8	19		
8.0	34	5.7	18		
7.9	33	5.6	17		
7.8	32	5.5	16		
7.7	31	5.4	15		
7.6-7.5	30	5.3	14		
7.4	29	5.2-5.1	13		
7.3	28	5.0-4.9	12		
7.2	27	4.8-4.6	11		
7.1	26	4.5-4.4	10		
7.0-6.9	25	4.3	9		
6.8-6.7	24	4.2-4.1	8		
6.6	23	4.0	7		
6.5	22	3.9-3.8	6		
6.4	21	3.7	5		
6.3	20	3.6-3.5	4		
6.2	19	3.4	3		
6.1	18	3.3-3.2	2		
6.0	17	3.1-2.5	1		
5.9	16				
5.8	15				
5.7	14				
5.6-5.5	13				
5.4	12				
5.3	11				
5.2-4.9	10				
4.8-4.4	9				
4.3-3.9	8				
3.8-3.4	7				
3.3-3.0	6				
2.9-2.6	5				
2.5	4				
2.4	3				
2.3	2				
2.2	1				

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 9

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
17.2	99	12.9-12.5	99	13.7-13.4	99
17.1-17.0	98	12.4-12.1	98	13.3-13.0	98
16.9	97	12.0-11.8	97	12.9-12.6	97
16.8	96	11.7-11.4	96	12.5-12.3	96
16.7	95	11.3	94	12.2-12.1	95
16.6	94	11.2	93	12.0-11.8	94
16.5-16.4	93	11.1	91	11.7-11.6	93
16.3-15.7	92	11.0	89	11.5	92
15.6-15.0	91	10.9	87	11.4-11.3	91
14.9-14.4	90	10.8-10.7	86	11.2	90
14.3	89	10.6	85	11.1-11.0	89
14.2	88	10.5-10.4	84	10.9	88
14.1	87	10.3-10.2	83	10.8-10.7	87
14.0	86	10.1	82	10.6-10.5	86
13.9-13.8	85	10.0- 9.9	81	10.4	85
13.7	84	9.8	79	10.3-10.2	84
13.6	83	9.7	77	10.1-10.0	83
13.5	82	9.6	74	9.9- 9.8	82
13.4	81	9.5	71	9.7- 9.5	81
13.3	79	9.4	69	9.4	80
13.2	78	9.3	68	9.3	78
13.1	76	9.2	66	9.2	77
13.0	75	9.1	65	9.1	76
12.9	74	9.0	64	9.0	74
12.8	73	8.9	63	8.9	73
12.7	72	8.8	61	8.8	72
12.6	71	8.7	60	8.7- 8.5	71
12.5	70	8.6	59	8.4	70
12.4-12.3	69	8.5	58	8.3- 8.1	69
12.2	68	8.4	57	8.0	67
12.1	67	8.3	55	7.9	66
12.0	66	8.2	53	7.8	65
11.9	65	8.1	52	7.7	64
11.8-11.7	64	8.0	50	7.6	63
11.6	63	7.9	48	7.5	61
11.5	62	7.8	46	7.4	60
11.4	61	7.7	45	7.3	56
11.3	60	7.6	43	7.2	52
11.2-11.1	59	7.5	41	7.1	48
11.0	58	7.4	39	7.0	44
10.9	57	7.3	36	6.9	40
10.8	56	7.2	33	6.8	37
10.7	55	7.1	30	6.7	33
10.6	54	7.0	27	6.6	31
10.5	53	6.9	24	6.5	29
10.4	52	6.8- 6.5	23	6.4	28

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BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 9 (Cont.)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
10.3-10.2	51	6.4-6.2	22	6.3	27
10.1	50	6.1-5.9	21	6.2	25
10.0	48	5.8	19	6.1	24
9.9	47	5.7	17	6.0	22
9.8	46	5.6	16	5.9	21
9.7	45	5.5	14	5.8	19
9.6	43	5.4	12	5.7	18
9.5	42	5.3-5.1	11	5.6	16
9.4	40	5.0-4.8	10	5.5	14
9.3	39	4.7-4.4	9	5.4	13
9.2	37	4.3-4.2	8	5.3	12
9.1	35	4.1	7	5.2-5.1	11
9.0	34	4.0-3.9	6	5.0-4.9	10
8.9	32	3.8	5	4.8-4.6	9
8.8	30	3.7-3.6	4	4.5-4.4	8
8.7	28	3.5-3.4	3	4.3-4.2	7
8.6	27	3.3	2	4.1-3.9	6
8.5	26	3.2	1	3.8	5
8.4	25			3.7	4
8.3	23			3.6-3.5	3
8.2	22			3.4-3.0	2
8.0- 8.1	21			2.9-2.5	1
7.8- 7.9	20				
7.6- 7.7	19				
7.4- 7.5	18				
7.3	17				
7.2	15				
7.1	14				
7.0	13				
6.9	11				
6.8	10				
6.7	9				
6.6- 6.2	8				
6.1- 5.8	7				
5.7- 5.3	6				
5.2- 5.0	5				
4.9- 4.8	4				
4.7- 4.6	3				
4.5- 4.4	2				
4.3- 4.2	1				

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 10

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
19.4	99	14.4-14.3	99	13.4-13.3	99
19.3	98	14.2	98	13.2	98
19.2	97	14.1	97	13.1	97
19.1	96	14.0	96	13.0-12.9	96
19.0	95	13.9	95	12.8-12.6	95
18.9	93	13.8	94	12.5-12.2	94
18.8-18.7	92	13.7	93	12.1-11.9	93
18.6-18.4	91	13.6	92	11.8-11.7	92
18.3-18.2	90	13.5	90	11.6	91
18.1-18.0	89	13.4	88	11.5-11.4	90
17.9-17.7	88	13.3	86	11.3-11.2	89
17.6-17.5	87	13.2	84	11.1-11.0	88
17.4-17.3	86	13.1	82	10.9	87
17.2	85	13.0	80	10.8	86
17.1-17.0	84	12.9-12.7	79	10.7	84
16.9	83	12.6-12.5	78	10.6	83
16.8-16.7	82	12.4-12.3	77	10.5	81
16.6-16.5	81	12.2-12.0	76	10.4	80
16.4	80	11.9-11.8	75	10.3	79
16.3-16.2	79	11.7-11.6	74	10.2-10.1	78
16.1-16.0	78	11.5	72	10.0- 9.9	77
15.9-15.8	77	11.4	70	9.8- 9.6	76
15.7-15.6	76	11.3	67	9.5- 9.3	75
15.5-15.3	75	11.2	65	9.2- 8.9	74
15.2-15.1	74	11.1	63	8.8	70
15.0-14.7	73	11.0	60	8.7	66
14.6-14.4	72	10.9	58	8.6	62
14.3-14.1	71	10.8-10.7	57	8.5	58
14.0-13.7	70	10.6-10.5	56	8.4	54
13.6	68	10.4	55	8.3	53
13.5	66	10.3-10.2	54	8.2- 8.1	52
13.4	65	10.1	53	8.0- 7.9	51
13.3	63	10.0	51	7.8	49
13.2	61	9.9	50	7.7	47
13.1	60	9.8	49	7.6	45
13.0	58	9.7	47	7.5	43
12.9	57	9.6	46	7.4	41
12.8	55	9.5	45	7.3	37
12.7	54	9.4	43	7.2	31
12.6	52	9.3	42	7.1	26
12.5	50	9.2	41	7.0	21
12.4	49	9.1	39	6.9	16
12.3	48	9.0	38	6.8	14
12.2	47	8.9	36	6.7	12
12.1	46	8.8	35	6.6	10
		8.7	33	6.5	9
		8.6	32	6.4	7
		8.5	30	6.3	5
				6.2	3
				6.1	2
				6.0	1

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

Grade 10 (con't.)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
12.0	45	8.4	29		
11.9	44	8.3	28		
11.8	43	8.2	26		
11.7	42	8.1	25		
11.6	41	8.0-7.9	24		
11.5	39	7.8-7.6	23		
11.4	37	7.5-7.4	22		
11.3	36	7.3	20		
11.2	34	7.2	18		
11.1	32	7.1	16		
11.0	30	7.0	15		
10.9	29	6.9	12		
10.8-10.7	28	6.8	10		
10.6	27	6.7	9		
10.5-10.4	26	6.6-6.5	8		
10.3-10.2	25	6.4-6.3	7		
10.1- 9.7	24	6.2-6.0	6		
9.6- 9.2	23	5.9-5.8	5		
9.1- 8.8	22	5.7-5.5	4		
8.7	21	5.4-5.3	3		
8.6	19	5.2-4.8	2		
8.5	17	4.7-4.5	1		
8.4	16				
8.3	15				
8.2	13				
8.1	12				
8.0	11				
7.9	10				
7.8	9				
7.7	8				
7.6	7				
7.5- 7.4	6				
7.3- 6.7	5				
6.6- 6.0	4				
5.9- 5.3	3				
5.2- 4.8	2				
4.7- 4.4	1				

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE II

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
17.9	99	14.4-14.3	99	16.9-16.0	99
17.8	98	14.2-14.1	98	15.9-15.0	98
17.7	97	14.0	97	14.9-14.0	97
17.6	96	13.9-13.8	96	13.9-12.9	96
17.5	95	13.7	95	12.8	95
17.4	94	13.6-13.5	94	12.7-12.6	94
17.3-17.2	93	13.4	93	12.5-12.4	93
17.1-17.0	92	13.3-13.2	92	12.3	92
16.9-16.7	91	13.1	91	12.2-12.1	91
16.6-16.5	90	13.0-12.9	90	12.0-11.9	90
16.4-16.2	89	12.8	89	11.8	89
16.1-16.0	88	12.7-12.6	88	11.7	88
15.9-15.8	87	12.5-12.4	87	11.6	87
15.7-15.5	86	12.3	86	11.5	86
15.4-15.3	85	12.2-12.1	85	11.4	85
15.2-15.1	84	12.0-11.9	84	11.3	84
15.0-14.9	83	11.8	83	11.2	83
14.8-14.7	82	11.7	81	11.1-11.0	82
14.6-14.4	81	11.6	80	10.9	81
14.3	80	11.5	79	10.8	80
14.2	79	11.4	78	10.7	78
14.1-14.0	78	11.3	77	10.6	76
13.9	77	11.2	75	10.5	74
13.8	76	11.1	74	10.4	72
13.7	75	11.0	73	10.3	71
13.6	73	10.9	72	10.2	70
13.5	72	10.8	71	10.1	68
13.4	70	10.7	69	10.0	67
13.3	68	10.6	67	9.9	66
13.2	67	10.5	65	9.8	64
13.1	65	10.4	63	9.7	62
13.0	63	10.3	61	9.6	60
12.9	60	10.2	60	9.5	58
12.8	58	10.1	59	9.4	57
12.7	56	10.0	58	9.3	55
12.6	54	9.9	57	9.2	53
12.5	52	9.8	54	9.1	51
12.4	50	9.7	51	9.0	49
12.3	48	9.6	48	8.9	48
12.2	46	9.5	45	8.8	46
12.1	44	9.4	42	8.7	44
12.0	42	9.3	40	8.6	42
11.9	40	9.2	39	8.5	40
11.8	38	9.1	37	8.4	39
11.7	36	9.0	35	8.3	37
11.6	35	8.9	33	8.2	36

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BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE II (cont'd.)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
11.5	33	8.8-8.7	32	8.1	35
11.4	32	8.6	31	8.0	34
11.3	30	8.5-8.4	30	7.9	33
11.2	29	8.3	29	7.8	31
11.1	27	8.2-8.1	28	7.7	29
11.0	26	8.0-7.9	27	7.6	27
10.9	25	7.8	26	7.5	25
10.8	23	7.7	25	7.4	24
10.7	22	7.6	23	7.3	21
10.6	20	7.5	22	7.2	18
10.5	19	7.4	21	7.1	15
10.4	17	7.3	20	7.0	12
10.3	16	7.2-7.1	19	6.9	9
10.2	15	7.0-6.9	18	6.8	8
10.1-10.0	14	6.8	16	6.7	7
9.9- 9.7	13	6.7	14	6.6	5
9.6- 9.5	12	6.6	13	6.5	4
9.4	11	6.5	11	6.4	3
9.3- 9.2	10	6.4	9	6.3	2
9.1- 8.9	9	6.3-6.2	8	6.2	1
8.8- 8.7	8	6.1	7		
8.6- 8.5	7	6.0	6		
8.4- 8.1	6	5.9-5.8	5		
8.0- 7.9	5	5.7	4		
7.8- 7.6	4	5.6-5.5	3		
7.5- 7.4	3	5.4-5.3	2		
7.3- 6.9	2	5.2-5.1	1		
6.8- 6.4	1				

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 12

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.4-18.3	99	14.4-14.2	99	15.8-15.3	99
18.2	98	14.1-14.0	98	15.2-14.8	98
18.1	97	13.9	97	14.7-14.3	97
18.0-17.9	96	13.8-13.7	96	14.2-13.7	96
17.8	94	13.6-13.4	95	13.6-13.5	95
17.7	92	13.3-13.2	94	13.4	94
17.6	90	13.1-13.0	93	13.3	93
17.5	88	12.9	92	13.2	92
17.4	86	12.8	91	13.1-13.0	91
17.3	85	12.7	90	12.9	90
17.2	83	12.6	89	12.8	89
17.1	82	12.5	88	12.7-12.6	88
17.0	81	12.4	87	12.5	87
16.9	80	12.3	86	12.4-12.3	86
16.8	79	12.2	85	12.2-12.0	85
16.7	77	12.1	83	11.9	84
16.6	76	12.0	81	11.8-11.6	83
16.5	74	11.9	80	11.5-11.4	82
16.4	73	11.8	79	11.3-11.1	81
16.3	72	11.7	77	11.0-10.9	80
16.2-16.1	71	11.6	76	10.8-10.7	79
16.0-15.9	70	11.5	72	10.6-10.5	78
15.8	69	11.4	68	10.4-10.3	77
15.7	67	11.3	65	10.2	76
15.6	66	11.2	61	10.1	75
15.5	64	11.1	57	10.0	74
15.4	63	11.0	53	9.9	73
15.3	61	10.9	50	9.8	72
15.2	60	10.8	48	9.7- 9.6	71
15.1	59	10.7	46	9.5	70
15.0	57	10.6	44	9.4	67
14.9	56	10.5	42	9.3	65
14.8-14.7	55	10.4	40	9.2	61
14.6	54	10.3	38	9.1	58
14.5-14.4	53	10.2	36	9.0	55
14.3	52	10.1	34	8.9	52
14.2-14.1	51	10.0	32	8.8	50
14.0-13.9	50	9.9	30	8.7	49
13.8	48	9.8	28	8.6	48
13.7	46	9.7	26	8.5	47
13.6	44	9.6	25	8.4	46
13.5	42	9.5	23	8.3	45
13.4	40	9.4- 9.2	22	8.2	44
13.3	39	9.1	21	8.1	43
		9.0- 8.8	20	8.0	41
		8.7- 8.5	19	7.9	40
				7.8	39

BEGINNING-YEAR .2 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 12 (cont'd)

READING	
Gr. Score	Percentile
13.2	38
13.1	37
13.0	36
12.9	35
12.8	34
12.7	33
12.6	32
12.5	31
12.4	30
12.3	29
12.2	28
12.1	27
12.0-11.9	26
11.8-11.7	25
11.6	24
11.5-11.4	23
11.3	21
11.2	20
11.1	18
11.0	17
10.9	16
10.8-10.2	15
10.1- 9.7	14
9.6- 8.9	13
8.8	12
8.7	11
8.6	10
8.5	9
8.4	8
8.3	7
8.2	6
8.1	5
8.0	4
7.9	3
7.8- 7.6	2
7.5- 7.3	1

SPELLING	
Gr. Score	Percentile
8.4- 8.2	18
8.1- 7.8	17
7.7- 7.4	16
7.3	15
7.2	14
7.1- 7.0	13
6.9	12
6.8	11
6.7	10
6.6- 6.3	9
6.2- 5.9	8
5.8- 5.6	7
5.5- 5.3	6
5.2- 5.0	5
4.9- 4.8	4
4.7- 4.5	3
4.5- 4.4	2
4.3- 4.2	1

ARITHMETIC	
Gr. Score	Percentile
7.7	37
7.6	36
7.5	34
7.4	33
7.3	31
7.2	29
7.1	27
7.0	26
6.9	24
6.8	22
6.7	20
6.6-6.5	19
6.4	18
6.3-6.2	17
6.1-6.0	16
5.9	15
5.8-5.7	14
5.6-5.5	13
5.4	12
5.3	11
5.2-5.1	10
5.0-4.9	9
4.8-4.7	8
4.6	7
4.5-4.4	6
4.3-4.2	5
4.1	4
4.0-3.9	3
3.8-3.5	2
3.4-3.3	1

MID-YEAR NORMS

MID-YEAR STATISTICS (.4)

WIDE RANGE ACHIEVEMENT TEST

RANDOM SAMPLE

GRADE LEVEL	READING				SPELLING				ARITHMETIC	
	$\bar{X}$	s	$\bar{X}$Gs	sGs	$\bar{X}$	s	$\bar{X}$Gs	sGs	$\bar{X}$	s
1	1.25	1.26	1.10	1.32	1.29	.84	.55	.9	1.6	.69
2	3.38	.93	1.93	.99	2.5	.79	1.39	.98	2.7	.44
3	4.56	3.62	3.54	3.47	3.74	1.88	1.37	1.33	3.31	4.59
4	5.84	2.20	4.25	3.23	4.95	1.49	2.22	1.60	4.42	.542
5	7.30	2.50	4.53	3.09	5.91	1.91	2.27	1.94	5.33	.947
6	7.83	1.98	6.48	3.07	6.44	1.48	3.18	2.16	6.04	1.04
7	9.35	3.36	5.87	3.91	7.4	1.65	3.95	2.35	6.85	1.59
8	12.0	3.15	8.34	3.65	8.55	1.68	3.72	2.02	8.62	2.45
9	10.5	3.09	7.20	4.16	8.96	2.40	5.35	2.36	8.45	1.98
10	11.5	2.23	7.62	3.30	9.90	2.66	5.45	2.72	8.86	1.88
11	12.4	4.44	6.30	2.54	9.75	3.33	5.60	2.84	9.45	1.81
12	12.6	3.17	8.20	3.17	10.9	3.16	5.42	2.50	9.45	2.83

$\bar{X}$: Mean (Average Score)
s : Standard Deviation
XGs: Mean Grade Span (Average Grade Span)
sGs: Standard Deviation of Grade Span

For example, the average 3rd grader received a reading score of 4.5 or 4.6, and measured about 3.5 years between the basal and maximal scores on Reading. Sixty-seven percent of the 3rd graders had reading scores between 0.9 and 8.2. (Use the same approach to analyse Spelling scores and Arithmetic scores.)

MID-YEAR NORMS

WRAT - RAMDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 1

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
Above 4.7	99+				
4.7	99				
3.7	98				
3.6 - 3.2	97				
3.1	96				
3.0	96			30 & up	99+
2.9	96	2.9	98	2.9	99
2.8	95	2.8	97	2.8	98
2.7	94	2.7	97	2.7	98
2.6	94	2.6	96	2.6	97
2.5	93	2.5	96	2.5	97
2.4	92	2.4	95	2.4	96
2.3	91	2.3	93	2.3	91
2.2	91	2.2	91	2.2	86
2.1	90	2.1	89	2.1	80
2.0	89	2.0	87	2.0	75
1.9	89	1.9	84	1.9	68
1.8	86	1.8	79	1.8	60
1.7	83	1.7	72	1.7	50
1.6	81	1.6	66	1.6	41
1.5	78	1.5	60	1.5	32
1.4	75	1.4	53	1.4	28
1.3	68	1.3	48	1.3	24
1.2	60	1.2	44	1.2	21
1.1	50	1.1	40	1.1	18
1.0	40	1.0	36	1.0	14
K.9	32	K.9	32	K.9	11
K.8	28	K.8	28	K.8	10
K.7	22	K.7	24	K.7	9
K.6	19	K.6	20	K.6	8
K.5	14	K.5	15	K.5	7
K.4	10	K.4	11	K.4	7
K.3	10	K.3	10	K.3	7
K.2	10	K.2	10	K.2	6
K.1	9	K.1	10	K.1	6
K.0	9	K.0	10	K.0	6
PK.9	8	PK.9	9	PK.9	6
PK.8	8	PK.8	9	PK.8	5
PK.7	7	PK.7	8	PK.7	5
PK.6	7	PK.6	8	PK.6	5
PK.5	6	PK.5	8	PK.5	5
PK.4	6	PK.4	8	PK.4	5
PK.3	5	PK.3	7	PK.3	4
PK.2	5	PK.2	6	PK.2	4
PK.1	4	PK.1	5	PK.1	4
PK.0	4	PK.0	4	PK.0	4

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67

Local Percentiles

GRADE 1

READING	
Gr. Score	Percentile
N.9	3
N.8	3
N.7	3
N.6	2
N.5	2
N.4	2
N.3	1
N.2	1
N.1	1

GRADE 1 (Contd)

SPELLING	
Gr. Score	Percentile
N.9	3
N.8	3
N.7	3
N.6	2
N.5	2
N.4	2

ARITHMETIC	
Gr. Score	Percentile
N.9	4
N.8	3
N.7	3
N.6	3
N.5	2
N.4	2
N.3	2
N.2	1 or less

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67

Local Percentiles

GRADE 2

READING		SPELLING		ARITHMEIIC	
Gr. Score	percentile	Gr. Score	Percentile	Gr. Score	Percentile
5.4 & up	99+	4.5 & up	99+	3.9 & up	99+
5.3	99	4.4	99	3.8	99
5.2	98	4.3	99	3.7	99
5.1	98	4.2	98	3.6	98
5.0	97	4.1	97	3.5	98
4.9	97	4.0	97	3.4	97
4.8	95	3.9	96	3.3	96
4.7	94	3.8	95	3.2	96
4.6	91	3.7	94	3.1	86
4.5	89	3.6	92	3.0	76
4.4	86	3.5	90	2.9	68
4.3	82	3.4	89	2.8	63
4.2	78	3.3	85	2.7	58
4.1	73	3.2	80	2.6	53
4.0	69	3.1	76	2.5	40
3.9	64	3.0	72	2.4	27
3.8	64	2.9	68	2.3	15
3.7	63	2.8	62	2.2	12
3.6	62	2.7	58	2.1	10
3.5	61	2.6	51	2.0	7
3.4	61	2.5	45	1.9	6
3.3	58	2.4	39	1.8	5
3.2	53	2.3	33	1.7	4
3.1	48	2.2	28	1.6	2
3.0	43	2.1	22	1.5 and Below	Under 1
2.9	38	2.0	16		
2.8	33	1.9	11		
2.7	28	1.8	10		
2.6	23	1.7	9		
2.5	18	1.6	8		
2.4	14	1.5	8		
2.3	12	1.4	7		
2.2	9	1.3	7		
2.1	6	1.2	6		
2.0	5	1.1	6		
1.9	4	1.0	6		
1.8	3	K.9	5		
1.7	3	K.8	5		
1.6	2	K.7	5		
1.5	2	K.6	4		
1.4	1	K.5	4		
Under 1.3	1 or lower	K.4	4		
		K.3	3		
		K.2	2		
		K.1	1		
		K.0	Under 1		

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 3

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
9.7 & up	99+	9.8 & up	99+	4.3 & up	99+
9.6	99	9.7-9.0	98	4.2	99
9.5	98	8.9-8.0	97	4.1	96
9.4	96	7.9-7.4	96	4.0	93
9.3-9.2	94	7.3-7.0	95	3.9	89
9.1-9.0	93	6.9-6.5	94	3.8	85
8.9-8.8	92	6.4	93	3.7	80
8.7-8.6	91	6.3	92	3.6	75
8.5-8.4	90	6.2	91	3.5	69
8.3-8.0	89	6.1-5.9	90	3.4	64
7.9-7.7	88	5.8-5.7	89	3.3	58
7.6-7.2	87	5.6-5.5	88	3.2	50
7.1-6.8	86	5.4-5.3	87	3.1	42
6.7-6.4	85	5.2-5.1	86	3.0	34
6.3-6.2	84	5.0-4.9	85	2.9	29
6.1-5.9	83	4.8	84	2.8	24
5.8	82	4.7	83	2.7	19
5.7-5.6	81	4.6	81	2.6	14
5.5	80	4.5	80	2.5	9
5.4	79	4.4	79	2.4	4
5.3	78	4.3-4.2	78	2.3	3
5.2	77	4.1	77	2.2	2
5.1	75	4.0	76	2.1	1
5.0	74	3.9	75	2.0	1
4.9	72	3.8	68	1.9 and Below	Under 1
4.8	68	3.7	63		
4.7	65	3.6	57		
4.6	62	3.5	50		
4.5-4.4	58	3.4	45		
4.3-4.2	57	3.3	44		
4.1-4.0	56	3.2	42		
3.9	55	3.1	41		
3.8	52	3.0	40		
3.7	50	2.9	39		
3.6	47	2.8	34		
3.5	44	2.7	31		
3.4	41	2.6	27		
3.3	39	2.5	24		
3.2	36	2.4	20		
3.1	33	2.3	17		
3.0	30	2.2	14		
2.9	27	2.1	11		
2.8	23	2.0	8		
2.7	20	1.9	6		
2.6	16	1.8-1.7	5		
2.5	14	1.6-1.5	4		
2.4	11	1.4	3		

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 3
(Contd)

READING	
Gr. Score	Percentile
2.3	8
2.2	6
2.1	4
2.0	1
2.0 and Below	Under 1

SPELLING	
Gr. Score	Percentile
1.3-1.2	2
1.1	1
1.0 and Below	Under 1

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 4

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
10.6 & up	99+	9.0 & up	99+	5.6 & up	99+
10.5	99	8.9-8.6	99	5.5	99
10.4-10.3	98	8.5-8.4	98	5.4	97
10.2-10.0	97	8.3-8.2	97	5.3	95
9.9- 9.8	96	8.1-7.8	96	5.2	92
9.7	95	7.7-7.5	95	5.1	91
9.6	94	7.4-7.2	94	5.0	90
9.5	93	7.1-6.9	93	4.9	89
9.4- 9.2	92	6.8	91	4.8	81
9.1- 9.0	91	6.7	90	4.7	73
8.9- 8.5	90	6.6	88	4.6	64
8.4	89	6.5	87	4.5	55
8.3	88	6.4	86	4.4	47
8.2	86	6.3	82	4.3	39
8.1	85	6.2	78	4.2	34
8.0	84	6.1	75	4.1	30
7.9	82	6.0	71	4.0	25
7.8	81	5.9	68	3.9	20
7.7	79	5.8	67	3.8	15
7.6	78	5.7-5.6	66	3.7	11
7.5	76	5.5	65	3.6	10
7.4	75	5.4	64	3.5	9
7.3	74	5.3	63	3.4	8
7.2	72	5.2	62	3.3	5
7.1	71	5.1	60	3.2	3
7.0	69	5.0	59	3.1	1
6.9	68	4.9	57	3.0	1
6.8	66	4.8-4.7	56	2.9 and Below	Under 1
6.7	65	4.6	55		
6.6	63	4.5	54		
6.5	62	4.4	53		
6.4	60	4.3	49		
6.3	59	4.2	44		
6.2	58	4.1	39		
6.1	56	4.0	33		
6.0	55	3.9	29		
5.9- 5.8	53	3.8	25		
5.7	52	3.7	21		
5.6- 5.5	51	3.6	18		
5.4	50	3.5	14		
5.3	48	3.4	11		
5.2	46	3.3	9		
5.1	44	3.2	8		
5.0	41	3.1	7		
4.9	39	3.0	5		
4.8	38	2.9-2.8	3		
4.7	36	2.7-2.6	2		
4.6	35	2.5-2.3	1		
4.5	34	2.2 & Below	Under 1		

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 4
(Contd)

READING	
Gr. Score	Percentile
4.4	32
4.3	31
4.2	29
4.1	28
4.0	26
3.9	25
3.8	23
3.7	21
3.6	19
3.5	16
3.4	14
3.3	13
3.2	12
3.1	10
3.0	9
2.9	7
2.8	6
2.7	4
2.6	3
2.5	1
2.4 and Below	Under 1

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 5

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
13.4-12.8	99+	11.9-11.4	99+	7.8-7.5	99+
12.7-12.0	98	11.3-10.8	98	7.4-7.2	98
11.9-11.4	97	10.7-10.2	97	7.1-7.0	97
11.3-10.8	96	10.1- 9.8	96	6.9-6.8	96
10.7-10.6	95	9.5- 9.7	95	6.7	95
10.5-10.4	94	9.4- 9.2	94	6.6	93
10.3	93	9.1- 8.9	93	6.5	92
10.2	92	8.8	92	6.4	88
10.1	91	8.7	91	6.3	84
10.0	90	8.6- 8.5	90	6.2	78
9.9	89	8.4	89	6.1	77
9.8	88	8.3- 8.2	88	6.0	76
9.7	87	8.1	87	5.9	75
9.6	86	8.0- 7.9	86	5.8	72
9.5	84	7.8- 7.6	85	5.7	70
9.4	83	7.5- 7.3	84	5.6	67
9.3	81	7.2- 7.0	83	5.5	62
9.2	79	6.9	82	5.4	58
9.1	77	6.8	80	5.3	53
9.0	74	6.7	78	5.2	48
8.9	72	6.6	76	5.1	43
8.8	71	6.5	74	5.0	39
8.7	69	6.4	72	4.9	36
8.6	68	6.3	70	4.8	32
8.5	67	6.2	68	4.7	28
8.4	65	6.1	66	4.6	25
8.3	63	6.0	64	4.5	21
8.2	61	5.9	62	4.4	17
8.1	59	5.8	60	4.3	16
8.0	57	5.7	58	4.2	15
7.9	55	5.6	56	4.1	14
7.8	54	5.5	53	4.0	13
7.7	52	5.4	51	3.9	11
7.5	50	5.3	46	3.8	10
7.4	49	5.2	41	3.7	9
7.3	48	5.1	36	3.6	8
7.2	47	5.0	30	3.5	7
7.1	46	4.9	24	3.4	6
7.0	45	4.8	21	3.3	4
6.9-6.7	44	4.7	18	3.2	3
6.8-6.4	43	4.6	16	3.1	1
6.3-6.1	42	4.5	13	3.0 and Below	Under 1
6.0-5.9	41	4.4	10		
5.8	38	4.3- 4.1	9		
5.7	35	4.0- 3.8	8		
5.6	31	3.7- 3.5	7		
5.5	28	3.4- 3.1	6		
5.4	24	3.0- 2.7	5		

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 5
(Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
5.3	23	2.6-2.2	4		
5.2	21	2.1-1.9	3		
5.1	20	1.8	2		
5.0	19	1.7	1		
4.9	17	1.6 and Below	Under 1		
4.8	16				
4.7	15				
4.6	13				
4.5	12				
4.4-4.2	10				
4.1-3.8	9				
3.7-3.5	8				
3.4-3.1	7				
3.0-2.8	6				
2.7	5				
2.6-2.5	4				
2.4	3				
2.3-2.2	2				
2.1	1				
2.0 and Below	Under 1				

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67

Local Percentiles

GRADE 6

SPELLING	
Gr. Score	Percentile
9.3 & up	99+
9.2-9.1	98
9.0	97
8.9	96
8.8-8.7	95
8.6	94
8.5	93
8.4-8.3	92
8.2	91
8.1	90
8.0-7.9	89
7.8	87
7.7	86
7.6	84
7.5	83
7.4	81
7.3	76
7.2	71
7.1	66
7.0	60
6.9	55
6.8	54
6.7	52
6.6	51
6.5	50
6.4	48
6.3	46
6.2	43
6.1	41
6.0	39
5.9	37
5.8	34
5.7	30
5.6	26
5.5	22
5.4	19
5.3	18
5.2	17
5.1	16
5.0-4.9	15
4.8	14
4.7-4.6	13
4.5	12
4.4	11
4.3-4.2	10
4.1	9
4.0	8
3.9-3.8	7
3.7	6
3.6	5
3.5-3.4	4
3.3	3
3.2	2
3.1	1
3.0 and Below	Under 1

READING	
Gr. Score	Percentile
12.5	99+
12.4-12.0	98
11.9-11.5	97
11.4-11.0	96
10.9-10.7	95
10.6-10.5	94
10.4-10.2	93
10.1- 9.8	92
9.7- 9.5	91
9.4- 9.2	90
9.1- 8.9	89
8.8	85
8.7	81
8.6	78
8.5	74
8.4	70
8.3	69
8.2	68
8.1	66
8.0	65
7.9	63
7.8	58
7.7	55
7.6	49
7.5	45
7.4	41
7.3- 7.1	39
7.0- 6.9	38
6.8- 6.7	37
6.6	31
6.5	29
6.4	26
6.3	22
6.2	18
6.1	15
6.0	11
5.9	7
5.8- 5.7	6
5.6	5
5.5	4
5.4	3
5.3	2
5.2	1
5.1	1
5.0 and Below	Under 1

ARITHMETIC	
Gr. Score	Percentile
8.0 & up	99+
7.9-7.8	98
7.7	97
7.6-7.5	96
7.4	94
7.3	93
7.2	92
7.1	91
7.0	90
6.9	89
6.8	82
6.7	77
6.6	70
6.5	68
6.4	66
6.3	63
6.2	58
6.1	53
6.0	49
5.9	44
5.8	39
5.7	33
5.6	30
5.5	26
5.4	22
5.3	21
5.2	20
5.1	19
5.0	17
4.9	16
4.8	15
4.7	13
4.6	12
4.5	11
4.4	10
4.3-4.2	9
4.1-4.0	8
3.9	7
3.8	6
3.7	5
3.6	4
3.5-3.4	3
3.3-3.2	2
3.1	1
3.0 and Below	Under 1

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 7

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
15.9-15.7	99+	10.4	99+	10.9-10.8	99+
15.6-15.5	98	10.3	98	10.7	98
15.4-15.3	97	10.2	96	10.6-10.5	97
15.2-15.1	96	10.1	94	10.4-10.2	96
15.0-14.9	95	10.0	92	10.1- 9.9	95
14.8	94	9.9	90	9.8- 9.6	94
14.7-14.5	93	9.8	89	9.5- 9.3	93
14.4-14.3	92	9.7-9.6	88	9.2- 9.0	92
14.2-14.1	91	9.5	87	9.1- 8.7	91
14.0-13.9	90	9.4	86	8.6- 8.4	90
13.8	89	9.3	85	8.3	88
13.7-13.6	88	9.2	84	8.2	87
13.5	87	9.1	82	8.1	86
13.4-13.3	86	9.0	81	8.0	85
13.2	85	8.9	80	7.9	83
13.1-13.0	84	8.8	78	7.8	82
12.9-12.8	83	8.7	77	7.7	80
12.7-12.5	82	8.6	76	7.6	79
12.4-12.2	81	8.5	74	7.5	78
12.1-11.9	80	8.4	73	7.4	76
11.8-11.6	79	8.3	71	7.3	73
11.5-11.3	78	8.2	69	7.2	70
11.2-11.0	77	8.1	67	7.1	66
10.9	76	8.0	65	7.0	63
10.8	75	7.9	63	6.9	60
10.7	74	7.8	62	6.8	53
10.6	72	7.7	60	6.7	48
10.5	71	7.6	59	6.6	42
10.4	70	7.5	58	6.5	36
10.3	69	7.4	56	6.4	30
10.2	67	7.3	53	6.3	28
10.1	66	7.2	50	6.2	26
10.0	65	7.1	46	6.1	24
9.9	63	7.0	43	6.0	22
9.8	62	6.9	40	5.9	20
9.7	59	6.8	37	5.8	18
9.6	57	6.7	34	5.7	17
9.5	55	6.6	32	5.6	16
9.4	53	6.5	29	5.5	15
9.3	51	6.4	26	5.4	13
9.2	49	6.3	25	5.3	12
9.1	47	6.2	24	5.2	11
9.0	45	6.1	23	5.1	9
8.9	43	6.0	21	5.0	8
8.8- 8.7	42	5.9	20	4.9-4.5	6
8.6	41	5.8	19	4.4-3.7	5
8.5- 8.4	40	5.7	18	3.6-2.8	4
8.3	39	5.6	17	2.7-2.4	3

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67

Local Percentiles

GRADE 7 (Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
8.2-8.1	38	5.5	16	2.3	2
8.0	37	5.4	15	2.2-2.1	1
7.9	36	5.3	14	2.0 and Below	Under 1
7.8-7.7	35	5.2	13		
7.6-7.5	34	5.1	12		
7.4	33	5.0	11		
7.3-7.2	32	4.9	10		
7.1	31	4.8	8		
7.0-6.9	30	4.7	7		
6.8	29	4.6	6		
6.7	27	4.5	4		
6.6	26	4.4	3		
6.5	24	4.3	2		
6.4	23	4.2	1		
6.3	20	4.1 and Below	Under 1		
6.2	18				
6.1	15				
6.0	12				
5.9	10				
5.8	9				
5.7	8				
5.6-5.5	7				
5.4	6				
5.3-5.2	5				
5.1	4				
5.0	3				
4.9-4.8	2				
4.7-4.6	1				
4.5 and Below	Under 1				

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 8

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.9-18.8	99+	12.9-12.8	99+	14.9-14.7	99+
18.7	98	12.7-12.6	98	14.6-14.4	98
18.6-18.5	97	12.5-12.4	97	14.3-14.1	97
18.4-18.3	96	12.3-12.2	96	14.0-13.7	96
18.2	95	12.1-12.0	95	13.6-13.5	95
18.1-18.0	94	11.9-11.8	94	13.4-13.2	94
17.9-17.8	93	11.7-11.6	93	13.1-12.9	93
17.7-17.2	92	11.5-11.4	92	12.8-12.6	92
17.1-16.7	91	11.3-11.2	91	12.5-12.3	91
16.6-16.2	90	11.1-11.0	90	12.2-12.1	90
16.1-15.9	89	10.9	89	12.0-11.8	89
15.8	88	10.8	88	11.7-11.4	88
15.7	87	10.7	87	11.3-11.1	87
15.6	86	10.6	86	11.0-10.9	86
15.5	85	10.5	85	10.8	84
15.4	84	10.4	84	10.7	83
15.3	83	10.3	83	10.6	82
15.2	82	10.2	82	10.5	80
15.1	81	10.1	81	10.4	79
15.0	80	10.0	80	10.3	78
14.9	79	9.9	79	10.2	76
14.8	78	9.8	77	10.1	75
14.7	77	9.7	76	10.0	73
14.6	76	9.6	74	9.9	72
14.5	75	9.5	72	9.8	71
14.4	74	9.4	70	9.7	70
14.3	73	9.3	69	9.6	69
14.2	72	9.2	67	9.5	68
14.1	71	9.1	65	9.4	67
14.0	70	9.0	63	9.3	66
13.9-13.8	68	8.9	62	9.2	65
13.7	67	8.8	60	9.1	64
13.6-13.5	66	8.7	59	9.0	63
13.4	65	8.6	58	8.9	62
13.3-13.2	64	8.5	56	8.8	60
13.1	63	8.4	55	8.7	59
13.0-12.9	62	8.3	54	8.6	57
12.8	60	8.2	52	8.5	56
12.7	59	8.1	51	8.4	55
12.6	58	8.0	49	8.3	53
12.5	56	7.9	48	8.2	52
12.4	55	7.8	45	8.1	51
12.3	54	7.7	42	8.0	49
12.2	52	7.6	38	7.9	48
12.1	51	7.5	35	7.8	46
12.0	50	7.4	32	7.7	44
11.9	48	7.3	29	7.6	43
11.8	47	7.2	26	7.5	41

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
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Local Percentiles

GRADE 8

READING		SPELLING (Contd)		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
11.7	46	7.1	23	7.4	39
11.6	45	7.0	20	7.3	37
11.5	44	6.9	17	7.2	36
11.4	43	6.8	15	7.1	34
11.3	42	6.7	14	7.0	32
11.2	41	6.6	13	6.9	30
11.1	40	6.5	11	6.8	28
11.0	39	6.4	10	6.7	25
10.9	37	6.3	9	6.6	23
10.8	36	6.2	7	6.5	21
10.7	35	6.1	6	6.4	18
10.6	34	6.0	4	6.3	16
10.5	33	5.9-5.8	3	6.2	14
10.4	32	5.7-5.5	2	6.1	11
10.3	31	5.4-5.3	1	6.0	9
10.2	30	5.2 and Below	Under 1	5.9	6
10.1	29			5.8-5.7	5
10.0	28			5.6	4
9.9	27			5.5	3
9.8-9.7	26			5.4-5.3	2
9.6	25			5.2	1
9.5-9.4	24			5.1 and Below	Under 1
9.3	23				
9.2	22				
9.1-9.0	21				
8.9	20				
8.8-8.7	19				
8.6	18				
8.5-8.4	17				
8.3	16				
8.2-8.1	15				
8.0	14				
7.9	13				
7.8	12				
7.7	11				
7.6	10				
7.5	9				
7.4	8				
7.3	7				
7.2	6				
7.1	5				
7.0	4				
6.9-6.8	3				
6.7-6.5	2				
6.4-6.3	1				
6.2 and Below	Under 1				

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67

Local Percentiles

GRADE 9

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
15.9	99+	14.9-14.7	99+	12.9-12.6	99+
15.8	98	14.6-14.4	98	12.5-12.4	98
15.7	97	14.3-14.1	97	12.3-12.1	97
15.6	96	14.0-13.8	96	12.0-11.9	96
15.5	95	13.7-13.5	95	11.8-11.7	95
15.4	94	13.4-13.1	94	11.6	94
15.3	93	13.0-12.9	93	11.5	93
15.2	92	12.8	92	11.4-11.3	92
15.1	91	12.7-12.6	91	11.2	91
15.0	90	12.5	90	11.1	90
14.9	89	12.4-12.3	89	11.0-10.9	89
14.8	88	12.2	88	10.8	87
14.7	87	12.1-12.0	87	10.7	85
14.6	86	11.9	86	10.6	84
14.5	85	11.8-11.7	85	10.5	82
14.4	84	11.6	84	10.4	80
14.3	83	11.5-11.4	83	10.3	78
14.2	82	11.3	82	10.2	76
14.1	81	11.2	81	10.1	75
14.0	80	11.1-11.0	80	10.0	73
13.9	79	10.9	79	9.9- 9.8	71
13.8	78	10.8	78	9.7- 9.6	70
13.7	77	10.7-10.6	77	9.5- 9.3	69
13.6	76	10.5	76	9.2- 9.1	68
13.5	75	10.4-10.3	75	9.0- 8.9	67
13.4	74	10.2	74	8.8	65
13.3	73	10.1	73	8.7	62
13.2	71	10.0- 9.9	72	8.6	60
13.1	70	9.8	71	8.5	57
13.0	69	9.7	68	8.4	55
12.9-12.7	68	9.6	67	8.3	52
12.6-12.4	67	9.5	65	8.2	50
12.3-12.1	66	9.4	63	8.1	47
12.0-11.9	65	9.3	62	8.0	45
11.8-11.7	64	9.2	60	7.9	42
11.6	63	9.1	58	7.8	40
11.5-11.4	62	9.0	57	7.7	38
11.3	61	8.9	55	7.6	36
11.2	60	8.8	53	7.5	34
11.1-11.0	59	8.7	51	7.4	32
10.9-10.8	58	8.6	49	7.3	30
10.7-10.5	57	8.5	47	7.2	27
10.4-10.2	56	8.4	45	7.1	25
10.1- 9.9	55	8.3	43	7.0	23
9.8	52	8.2	41	6.9- 6.8	21
9.7	49	8.1	38	6.7	20
9.6	47	8.0	36	6.6- 6.5	19

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 9
(CONTD)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
9.5	44	7.9	34	6.4-6.3	18
9.4	41	7.8	32	6.2	17
9.3	38	7.7	31	6.1-6.0	16
9.2	36	7.6	30	5.9-5.8	15
9.1	33	7.5	29	5.7-5.6	14
9.0	30	7.4	27	5.5	13
8.9	27	7.3	26	5.4-5.3	12
8.8-8.7	26	7.2	24	5.2-5.1	11
8.6	25	7.1	23	5.0	10
8.5-8.4	24	7.0	22	4.9-4.8	9
8.3	23	6.9	20	4.7-4.6	8
8.2-8.1	22	6.8	19	4.5	7
8.0	21	6.7	17	4.4-4.3	6
7.9	20	6.6	16	4.2-4.1	5
7.8-7.7	19	6.5	15	4.0	4
7.6	18	6.4	13	3.9-3.7	3
7.5-7.4	17	6.3	12	3.6-3.5	2
7.3	16	6.2	10	3.4-3.3	1
7.2-7.1	15	6.1	9	3.2 and Below	Under 1
7.0	14	6.0	8		
6.9	13	5.9-5.7	6		
6.8-6.7	12	5.6-5.4	5		
6.6	11	5.3-5.1	4		
6.5-6.4	10	5.0-4.8	3		
6.3	9	4.7-4.5	2		
6.2-6.1	8	4.4-4.3	1		
6.0	7	4.2 and Below	Under 1		
5.9	6				
5.8-5.7	5				
5.6	4				
5.5	3				
5.4-5.3	2				
5.2	1				
5.1 and Below	Under 1				

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67

Local Percentiles

GRADE 10

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
14.9	99+	13.9-13.8	99+	14.9-14.1	99+
14.8	98	13.7-13.6	98	14.0-13.1	98
14.7	97	13.5	97	13.0-12.3	97
14.6	96	13.4-13.3	96	12.2-11.9	96
14.5	94	13.2	95	11.8-11.7	95
14.4	93	13.1	94	11.6	94
14.3	92	13.0-12.9	93	11.5	93
14.2	90	12.8	91	11.4-11.3	92
14.1	89	12.7	89	11.2-11.1	91
14.0	88	12.6	87	11.0	90
13.9	86	12.5	85	10.9	89
13.8	85	12.4	83	10.8	87
13.7	84	12.3	81	10.7	85
13.6	83	12.2	79	10.5	81
13.5	82	12.1	..	10.4	79
13.4	81	12.0	74	10.3	77
13.3	79	11.9	73	10.2	75
13.2	78	11.8	71	10.1	72
13.1	77	11.7	70	10.0	70
13.0	76	11.6	68	9.9	68
12.9	75	11.5	67	9.8	67
12.8	73	11.4	65	9.7	66
12.7	71	11.3	64	[illegible]	[illegible]
12.6	68	11.2	63	9.5	64
12.5	66	[illegible]	60	9.4	63
12.4	63	10.9	58	9.3	62
[illegible]	59	10.8	57	9.2	61
12.1	56	10.7	56	9.1	60
12.0	54	10.6	55	9.0	59
11.9	51	10.5	54	8.9	58
11.8	49	10.4	53	8.8	56
11.7	48	10.3	52	8.7	54
11.6	46	10.2	51	8.6	52
11.5	44	10.1	50	8.5	50
11.4	43	10.0	49	8.4	48
11.3	41	9.9	48	8.3	46
11.2	39	9.8	46	8.2	44
11.1	38	9.7	45	8.1	42
11.0	36	9.6	44	8.0	39
10.9	34	9.5	42	7.9	37
10.8-10.7	33	9.4	41	7.8	35
10.6	32	9.3	40	7.7	32
10.5-10.4	31	9.2	38	7.6	30
10.3	30	9.1	37	7.5	28
10.2	29	9.0	36	7.4	25
10.1-10.0	28	8.9-8.8	34	7.3	23

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67

Local Percentiles

GRADE 10 (CONTD)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
9.9	27	8.7-8.5	33	7.2	21
9.8	26	8.4-8.2	32	7.1	18
9.7	24	8.1-7.9	31	7.0	16
9.6	23	7.8	29	6.9	13
9.5	22	7.7	27	6.8	12
9.4	20	7.6	25	6.7	10
9.3	19	7.5	24	6.6	9
9.2	17	7.4	22	6.5	7
9.1	16	7.3	20	6.4	6
9.0	15	7.2	18	6.3	4
8.9-8.7	13	7.1	17	6.2	2
8.6-8.4	12	7.0	15	6.1	1
8.3-8.1	11	6.9	13	6.0 and Below	Under 1
8.0-7.9	10	6.8-6.7	12		
7.8-7.7	9	6.6	11		
7.6	8	6.5-6.4	10		
7.5-7.4	7	6.3	9		
7.3	6	6.2-6.1	8		
7.2-7.1	5	6.0	7		
7.0	4	5.9-5.7	6		
6.9-6.8	3	5.6-5.4	5		
6.7-6.6	2	5.3-5.0	4		
6.5-6.3	1	4.9-4.8	3		
6.2 and Below	Under 1	4.7-4.5	2		
		4.4-4.3	1		
		4.2 and Below	Under 1		

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles

GRADE 11

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.9	99+	15.9-15.7	99+	13.9-13.6	99+
18.8	97	15.6-15.4	98	13.5-13.4	98
18.7	95	15.3-15.1	97	13.3-13.1	97
18.6	93	15.0-14.9	96	13.0-12.8	96
18.5	92	14.8-14.6	95	12.7-12.6	95
18.4	90	14.5-14.3	94	12.5-12.3	94
18.3	88	14.2-14.1	93	12.2-12.0	93
18.2	86	14.0-13.9	92	11.8	92
18.1	84	13.8	91	11.7	91
18.0	82	13.7	89	11.6	90
17.9-17.6	80	13.6	88	11.5	89
17.5-17.1	79	13.5	86	11.4	88
17.0-16.6	78	13.4	84	11.3-11.2	87
16.5-16.1	77	13.3	83	11.1	86
16.0-15.9	76	13.2	81	11.0	85
15.8	75	13.1	80	10.9	84
15.7	73	13.0	78	10.8	82
15.6	72	12.9	77	10.7	79
15.5	70	12.8	75	10.6	76
15.4	69	12.7	74	10.5	73
15.3	67	12.6	72	10.4	71
15.2	66	12.5	70	10.3	68
15.1	64	12.4	69	10.2	65
15.0	63	12.3	67	10.1	63
14.9-14.8	61	12.2	66	10.0	60
14.7-14.6	60	12.1	64	9.9	57
14.5-14.3	59	12.0	63	9.8	55
14.2-14.0	58	11.9	61	9.7	53
13.9-13.8	57	11.8	60	9.6	51
13.7-13.5	56	11.7	59	9.5	48
13.4-13.3	55	11.6	58	9.4	46
13.2-13.0	54	11.5	57	9.3	44
12.9-12.8	53	11.4	56	9.2	41
12.7-12.5	52	11.3	54	9.1	39
12.4-12.2	51	11.2	53	9.0	37
12.1-11.9	50	11.1	52	8.9	34
11.8	48	11.0	51	8.8	33
11.7	47	10.9	50	8.7	32
11.6	46	10.8-10.7	49	8.6	31
11.5	45	10.6-10.4	48	8.5	30
11.4	44	10.3-10.1	47	8.4	29
11.3	43	10.0- 9.9	46	8.3	27
11.2	42	9.8	44	8.2	26
11.1	40	9.7	43	8.1	25
11.0	39	9.6	41	8.0	24
10.9-10.7	38	9.5	40	7.9	23
10.6-10.2	37	9.4	38	7.8	22

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67
Local Percentiles

GRADE 11
(Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
10.1- 9.7	36	9.3	36	7.7	20
9.6- 9.2	35	9.2	35	7.6	19
9.1- 8.9	34	9.1	33	7.5	18
8.8	32	9.0	32	7.4	17
8.7	30	8.9	30	7.3	16
8.6	28	8.8	29	7.2	15
8.5	27	8.7-8.6	28	7.1	14
8.4	25	8.5	27	7.0	12
8.3	23	8.4-8.3	26	6.9	11
8.2	21	8.2	25	6.8	10
8.1	19	8.1	24	6.7	9
8.0	17	8.0-7.9	23	6.6	7
7.9- 7.8	15	7.8-7.7	22	6.5	6
7.7- 7.6	14	7.6-7.4	21	6.4	5
7.5- 7.3	13	7.3-7.1	20	6.3	3
7.2- 7.0	12	7.0-6.9	19	6.2	2
6.9- 6.8	11	6.8-6.6	18	6.1	1
6.7- 6.5	10	6.5-6.3	17	6.0 and Below	Under 1
6.4- 6.3	9	6.2-6.1	16		
6.2- 6.0	8	6.0-5.8	15		
5.9	7	5.7-5.6	14		
5.8- 5.7	6	5.5-5.3	13		
5.6	5	5.2-5.0	12		
5.5	4	4.9	11		
5.4	3	4.8	10		
5.3	2	4.7	8		
5.2- 5.1	1	4.6	7		
5.0 and Below	Under 1	4.5	6		
		4.4	4		
		4.3	3		
		4.2	2		
		4.1	1		
		4.0 and Below	Under 1		

MID-YEAR NORMS

WRAT - RANDOM SAMPLING

December 1966-67

Local Percentiles

GRADE 12

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.9 - 18.6	99+	15.9 - 15.8	99+	16.9 - 16.0	99+
18.5 - 18.4	98	15.7	98	15.9 - 15.3	98
18.3 - 18.1	97	15.6	96	15.2 - 14.5	97
18.0 - 17.9	96	15.5	95	14.4 - 13.9	96
17.8 - 17.6	95	15.4	94	13.8 - 13.6	95
17.5 - 17.3	94	15.3	93	13.5 - 13.3	94
17.2 - 17.0	93	15.2	92	13.2 - 13.1	93
16.9	92	15.1	91	13.0 - 12.9	92
16.8 - 16.7	91	15.0	90	12.8	91
16.6	90	14.9	89	12.7	89
16.5	89	14.8	87	12.6	88
16.4 - 16.3	88	14.7	86	12.5	86
16.2	87	14.6	84	12.4	85
16.1	86	14.5	83	12.3	83
16.0 - 15.9	85	14.4	81	12.2	82
15.8	84	14.3	80	12.1	81
15.7	82	14.2	78	12.0	80
15.6	80	14.1	77	11.9	77
15.5	79	14.0	75	11.8	76
15.4	78	13.9	74	11.7	75
15.3	76	13.8 - 13.6	73	11.6	74
15.2	75	13.5 - 13.3	72	11.5	73
15.1	73	13.2 - 13.1	71	11.4	72
15.0	72	13.0 - 12.9	70	11.3	71
14.9	70	12.8	69	11.2	70
14.8	69	12.7	68	11.1	68
14.7	68	12.6	67	11.0	67
14.6	67	12.5	66	10.9	66
14.5	66	12.4	64	10.8	65
14.4	65	12.3	63	10.7	64
14.3	64	12.2	62	10.6	63
14.2	63	12.1	61	10.5	62
14.1	62	12.0	60	10.4	61
14.0	60	11.9 - 11.8	59	10.3	60
13.9	59	11.7 - 11.6	58	10.2	59
13.8 - 13.7	58	11.5 - 11.3	57	10.1	58
13.6	57	11.2 - 11.0	56	10.0	56
13.5	56	10.9	55	9.9	55
13.4 - 13.3	55	10.8	54	9.8	54
13.2	54	10.7	52	9.7	53
13.1	53	10.6	50	9.6	52
13.0	52	10.5	48	9.5	51
12.9 - 12.8	51	10.4	46	9.4	50
12.7 - 12.5	50	10.3	44	9.3	48
12.4 - 12.2	49	10.2	42	9.2	47
12.1 - 11.9	48	10.1	41	9.1	46
11.8	47	10.0	39	9.0	45
11.7	46	9.9	37	8.9 - 8.8	44
11.6	45	9.8	36	8.7 - 8.5	43
11.5	43	9.7	35	8.4 - 8.3	42

MID-YEAR NORMS
WRAT - RANDOM SAMPLING
December 1966-67
Local Percentiles
GRADE 12
(Cont)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
11.4	42	9.6	34	8.2-8.0	41
11.3	41	9.5	33	7.9	40
11.2	40	9.4-9.3	32	7.8	39
11.1	39	9.2	31	7.7	38
11.0	38	9.1	30	7.6	37
10.9	37	9.0	29	7.5	36
10.8	35	8.9	28	7.4	35
10.7	34	8.8	26	7.3	34
10.6	32	8.7	25	7.2	33
10.5	31	8.6	24	7.1	31
10.4	29	8.5	22	7.0	30
10.3	28	8.4	21	6.9	29
10.2	26	8.3	20	6.8	27
10.1	25	8.2	19	6.7	24
10.0	23	8.1	17	6.6	21
9.9- 9.8	22	8.0	16	6.5	19
9.7- 9.6	21	7.9-7.7	14	6.4	16
9.5- 9.3	20	7.6-7.5	13	6.3	14
9.2- 9.0	19	7.4-7.2	12	6.2	11
8.9	18	7.1-6.9	11	6.1	9
8.8	17	6.8-6.6	10	6.0	6
8.7	15	6.5-6.3	9	5.9-5.8	3
8.6	14	6.2-6.0	8	5.7-5.5	2
8.5	12	5.9-5.7	7	5.4-5.2	1
8.4	11	5.6-5.5	6	5.1 and Below	Under 1
8.3	9	5.4-5.2	5		
8.2	8	5.1-5.0	4		
8.1	6	4.9-4.8	3		
8.0	5	4.7-4.5	2		
7.9- 7.8	3	4.4-4.3	1		
7.7- 7.5	2	4.2 and Below	Under 1		
7.4- 7.2	1				
7.1 and Below	Under 1				

END-YEAR NORMS

END-YEAR STATISTICS (.7)

WIDE RANGE ACHIEVEMENT TEST

RANDOM SAMPLE

GRADE	READING				SPELLING				ARITHMETIC	
LEVEL	$\bar{X}$	s	$\bar{X}$Gs	sGs	$\bar{X}$	s	$\bar{X}$Gs	sGs	$\bar{X}$	s
1	2.19	.84	1.54	1.20	2.16	.07	1.31	1.27	2.23	.30
2	3.92	1.32	4.38	2.57	3.30	.94	1.42	1.04	2.75	.59
3	5.35	2.50	3.40	4.31	4.46	1.36	1.30	1.14	4.30	.52
4	6.25	2.24	4.52	2.73	5.00	1.13	3.00	1.99	4.57	.59
5	7.20	2.05	5.58	3.31	6.16	1.53	2.73	2.01	5.61	.91
6	7.50	2.23	5.76	3.78	6.49	1.74	3.32	2.75	5.98	1.15
7	10.77	3.81	7.15	3.54	8.40	2.22	3.95	1.81	7.99	2.07
8	10.07	2.69	6.49	3.28	9.40	1.61	5.04	1.51	9.00	1.80
9	10.91	2.57	5.63	2.65	9.83	1.80	6.09	2.33	8.86	2.47
10	13.40	3.51	7.07	3.34	10.05	2.28	6.01	2.40	9.03	1.90
11	12.61	3.96	6.45	2.99	10.48	2.68	5.85	3.21	9.95	3.13
12	12.44	3.18	5.72	2.93	10.82	2.31	5.55	2.47	9.38	1.97

$\bar{X}$: Mean (Average Score)

s : Standard Deviation

$\bar{X}$Gs : Mean Grade Span (Average Grade Span)

sGs : Standard Deviation of Grade Span

For example, the average 3rd grader received a reading score of 5.3 or 5.4, and measured about 3.4 years between the basal and maximal score on Reading. Sixty-seven percent of the 3rd graders had reading scores between 2.8 and 7.8. (Use the same approach to analyse the Spelling scores and Arithmetic scores.)

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 1

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
4.3-4.1	99	3.0	99	2.8	99
4.0	98	2.9	93	2.7	96
3.9-3.8	97	2.8	92	2.6	94
3.7	96	2.7	89	2.5	91
3.6	95	2.6	79	2.4	89
3.5	94	2.5	72	2.3	67
3.4	93	2.4	65	2.2	45
3.3	92	2.3	58	2.1	25
3.2	90	2.2	48	2.0	23
3.1	89	2.1	42	1.9	20
3.0	86	2.0	37	1.8	10
2.9	83	1.9	36	1.7	8
2.8	79	1.8	34	1.6	6
2.7	78	1.7	27	1.5	5
2.6	77	1.6	22	1.4	3
2.5	75	1.5	17	1.3	2
2.4	72	1.4	13	1.2	1
2.3	69	1.3	11	1.1 and Below	Under 1
2.2	65	1.2	10		
2.1	56	1.1	5		
2.0	46	1.0	1		
1.9	37	K.9 and Below	Under 1		
1.8	33				
1.7	30				
1.6	27				
1.5	24				
1.4	22				
1.3	18				
1.2	16				
1.1	13				
1.0	10				
K.9	9				
K.8-K.7	8				
K.6-K.5	7				
K.4	6				
K.3	5				
K.2	3				
K.1	1				
K.0 and below	Under 1				

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 2

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
7.5-Up	99	5.5	99	3.9	99
7.4-7.3	98	5.4	97	3.8	98
7.2	97	5.3	95	3.7	94
7.1-7.0	96	5.2	92	3.6	92
6.9-6.8	95	5.1	91	3.5	90
6.7	94	5.0	89	3.4	89
6.6-6.5	93	4.9-4.8	88	3.3	87
6.4-6.3	92	4.7-4.5	87	3.2	85
6.2-6.0	91	4.4-4.2	86	3.1	78
5.9-5.7	90	4.1-4.0	85	3.0	70
5.6-5.4	89	3.9	84	2.9	61
5.3-5.2	88	3.8	82	2.8	51
5.1	87	3.7	81	2.7	44
5.0	86	3.6	77	2.6	37
4.9	85	3.5	73	2.5	36
4.8	84	3.4	68	2.4	35
4.7	83	3.3	64	2.3	34
4.6	81	3.2	60	2.2	33
4.5	77	3.1	55	2.1	20
4.4	71	3.0	48	2.0	14
4.3	66	2.9	40	1.9	11
4.2	65	2.8	33	1.8	10
4.1	64	2.7	28	1.7	8
4.0	62	2.6	23	1.6	7
3.9	56	2.5	19	1.5	6
3.8	50	2.4	16	1.4	5
3.7	44	2.3	13	1.3	4
3.6	42	2.2	11	1.2	2
3.5	39	2.1	4	1.1	1
3.4	36	2.0	1	1.0 and Below	Under 1
3.3	34	1.9 and Below	Under 1		
3.2	32				
3.1	29				
3.0	27				
2.9	24				
2.8	22				
2.7	20				
2.6	17				
2.5	14				
2.4	12				
2.3	10				
2.2	7				
2.1	6				
2.0	5				
1.9	3				
1.8	2				
1.7	1				
1.6 and Below	Under 1				

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 3

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
11.4-11.0	99	12.9-11.2	99	6.1-5.9	99
10.9-10.6	98	11.1- 9.6	98	5.8-5.7	98
10.5-10.2	97	9.5- 7.7	97	5.6-5.4	97
10.1- 9.9	96	7.6- 6.4	96	5.3-5.2	96
9.8	95	6.3	94	5.1	92
9.7- 9.6	94	6.2	93	5.0	88
9.5	93	6.1	91	4.9	84
9.4	92	6.0	90	4.8	81
9.3	91	5.9	88	4.7	77
9.2- 9.1	90	5.8	85	4.6	73
9.0	89	5.7	82	4.5	68
8.9	88	5.6	79	4.4	62
8.8	87	5.5	76	4.3	57
8.7- 8.6	86	5.4	73	4.2	51
8.5	85	5.3	71	4.1	44
8.4	84	5.2	70	4.0	38
8.3- 8.2	83	5.1	68	3.9	30
8.1	82	5.0	66	3.8	21
8.0	81	4.9	65	3.7	12
7.9	80	4.8	64	3.6	8
7.8- 7.7	79	4.7- 4.6	63	3.5	6
7.6	78	4.5	62	3.4	3
7.5	77	4.4	61	3.3	2
7.4	76	4.3	60	3.2	1
7.3- 7.2	75	4.2	58	3.1 and	Under
7.1	74	4.1	57	Below	1
7.0- 6.9	73	4.0	55		
6.8	72	3.9	53		
6.7	71	3.8	50		
6.6- 6.5	70	3.7	47		
6.4	69	3.6	43		
6.3	68	3.5	40		
6.2- 6.1	67	3.4	37		
6.0	66	3.3	33		
5.9	65	3.2	30		
5.8	64	3.1	26		
5.7- 5.6	63	3.0	23		
5.5	62	2.9	19		
5.4	61	2.8	18		
5.3- 5.2	60	2.7	16		
5.1	59	2.6	14		
5.0	58	2.5	13		
4.9	57	2.4	11		
4.8	56	2.3- 2.2	10		
4.7	54	2.1	9		
4.6	53	2.0	8		
4.5	51	1.9	7		

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 3 (Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
4.4	50	1.8-1.7	6		
4.3	48	1.6	5		
4.2	47	1.5	4		
4.1	45	1.4	3		
4.0	44	1.3	2		
3.9	42	1.2-1.1	1		
3.8	39	1.0 and Below	Under 1		
3.7	36				
3.6	33				
3.5	30				
3.4	26				
3.3	23				
3.2	21				
3.1	18				
3.0	15				
2.9	11				
2.8	10				
2.7	8				
2.6	7				
2.5	5				
2.4	3				
2.3	2				
2.2	1				
2.1 and Below	Under 1				

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 4

READING	
Gr. Score	Percentile
12.8 & Up	99
12.7-11.9	98
11.8-11.0	97
10.9-10.2	96
10.1	95
10.0	94
9.9	93
9.8- 9.7	92
9.6- 9.5	91
9.4- 9.2	90
9.1- 9.0	89
8.9- 8.7	88
8.6- 8.5	87
8.4- 8.2	86
8.1- 8.0	85
7.9- 7.7	84
7.6	83
7.5	82
7.4	81
7.3	80
7.2	79
7.1	78
7.0	75
6.9	73
6.8	70
6.7	68
6.6	66
6.5	65
6.4	63
6.3	61
6.2	60
6.1	58
6.0	56
5.9	55
5.8	53
5.7	52
5.6	50
5.5	48
5.4	47
5.3	45
5.2	44
5.1	40
5.0	36
4.9	32
4.8	28

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SPELLING	
Gr. Score	Percentile
6.9	99
6.8	97
6.7	94
6.6	92
6.5	90
6.4	89
6.3	88
6.2	86
6.1	85
6.0	84
5.9	80
5.8	76
5.7	72
5.6	68
5.5	64
5.4	60
5.3	57
5.2	54
5.1	52
5.0	50
4.9	49
4.8	48
4.7	44
4.6	40
4.5	36
4.4	33
4.3	30
4.2	28
4.1	26
4.0	24
3.9	23
3.8	21
3.7	19
3.6	18
3.5	16
3.4	14
3.3	13
3.2	11
3.1	10
3.0	8
2.9	6
2.8	5
2.7	4
2.6	3
2.5-2.4	2
2.3-2.2	1
2.1 and Below	Under 1

ARITHMETIC	
Gr. Score	Percentile
5.9	99
5.8	97
5.7	95
5.6	92
5.5	90
5.4	89
5.3	88
5.2	81
5.1	75
5.0	68
4.9	61
4.8	53
4.7	44
4.6	42
4.5	40
4.4	38
4.3	36
4.2	34
4.1	32
4.0	27
3.9	24
3.8	20
3.7	19
3.6-3.5	18
3.4	17
3.3-3.2	16
3.1	14
3.0	13
2.9	12
2.8	10
2.7	9
2.6	8
2.5	6
2.4	5
2.3	4
2.2	2
2.1	1
2.0 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 4 (Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
4.7	24				
4.6	22				
4.5	20				
4.4	19				
4.3	17				
4.2	16				
4.1	13				
4.0	11				
3.9	9				
3.8	7				
3.7	4				
3.6	2				
3.5	1				
3.4 and Below	Under 1				

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 5

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
12.3-12.1	99	10.1-10.0	99	7.7	99
12.0-11.8	98	9.9- 9.8	98	7.6	98
11.7-11.5	97	9.7	97	7.5	97
11.4-11.2	96	9.6- 9.5	96	7.4	96
11.1-11.0	95	9.4	95	7.3	94
10.9-10.8	94	9.3- 9.2	94	7.2	92
10.7-10.6	93	9.1	93	7.1	89
10.5-10.3	92	9.0	92	7.0	88
10.2-10.1	91	8.9- 8.8	91	6.9	87
10.0- 9.9	90	8.7	90	6.8	86
9.8- 9.7	89	8.6- 8.5	89	6.7	85
9.6	88	8.4	88	6.6	84
9.5- 9.4	87	8.3- 8.2	87	6.5	82
9.3	86	8.1	86	6.4	81
9.2	84	8.0	85	6.3	80
9.1	82	7.9- 7.8	84	6.2	79
9.0	80	7.7	83	6.1	78
8.9	78	7.6	82	6.0	77
8.8- 8.6	75	7.5- 7.4	81	5.9	75
8.5- 8.3	74	7.3	80	5.8	68
8.2- 8.0	73	7.2- 7.1	79	5.7	61
7.9- 7.8	72	7.0	78	5.6	55
7.7	70	6.9	76	5.5	52
7.6	67	6.8	75	5.4	50
7.5	66	6.7	74	5.3	48
7.4	63	6.6	72	5.2	42
7.3	61	6.5	69	5.1	35
7.2	58	6.4	67	5.0	27
7.1	55	6.3	64	4.9	24
7.0	51	6.2	61	4.8	20
6.9	47	6.1	58	4.7	17
6.8	44	6.0	55	4.6	14
6.7	42	5.9	52	4.5	10
6.6	40	5.8	48	4.4	6
6.5	38	5.7	45	4.3	5
6.4	36	5.6	41	4.2	3
6.3	34	5.5	38	4.1	1
6.2	33	5.4	34	4.0 and Below	Under 1
6.1	32	5.3	31		
6.0	31	5.2	28		
5.9	30	5.1	24		
5.8	29	5.0	21		
5.7	28	4.9	18		
5.6	27	4.8	14		
5.5	26	4.7	11		
5.4	25	4.6- 4.4	6		
5.3	24	4.3- 4.2	5		

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 5 (Contd)

READING	
Gr. Score	Percentile
5.2	22
5.1	20
5.0	18
4.9	15
4.8	13
4.7	12
4.6	10
4.5	8
4.4	6
4.3	5
4.2	3
4.1	1
4.0 and Below	Under 1

SPELLING	
Gr. Score	Percentile
4.1-3.9	4
3.8-3.7	3
3.6	1
3.5 and Below	Under 1

ARITHMETIC	
Gr. Score	Percentile

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 6

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
16.3-14.7	99	10.2-10.1	99	8.8- 8.5	99
14.6-13.2	98	10.0	98	8.4- 8.2	98
13.1-11.7	97	9.9- 9.8	97	8.1- 8.0	97
11.6-10.7	96	9.7	96	7.9- 7.8	96
10.6-10.4	95	9.6	95	7.7	95
10.3-10.2	94	9.5	93	7.6	93
10.1- 9.9	93	9.4	92	7.5	92
9.8- 9.7	92	9.3	90	7.4	90
9.6	91	9.2	89	7.3	89
9.5	90	9.1	88	7.2	86
9.4- 9.3	89	9.0- 8.9	87	7.1	83
9.2	88	8.8	86	7.0	80
9.1- 9.0	87	8.7- 8.6	85	6.9	77
8.9- 8.8	86	8.5	84	6.8	75
8.7	85	8.4	83	6.7	71
8.6	84	8.3- 8.2	82	6.6	68
8.5- 8.4	83	8.1	80	6.5	64
8.3	82	8.0	79	6.4	60
8.2	78	7.9	77	6.3	57
8.1	73	7.8	76	6.2	55
8.0	68	7.7	75	6.1	53
7.9	62	7.6	73	6.0	50
7.8	57	7.5	72	5.9	48
7.7	55	7.4	70	5.8	46
7.6	54	7.3	69	5.7	45
7.5	53	7.2	67	5.6	43
7.4	51	7.1	65	5.5	42
7.3	50	7.0	63	5.4	40
7.2	48	6.9	61	5.3	39
7.1	46	6.8	59	5.2	36
7.0	43	6.7	57	5.1	33
6.9	41	6.6	56	5.0	31
6.8	39	6.5	54	4.9	28
6.7	37	6.4	53	4.8	25
6.6	36	6.3	51	4.7	22
6.5	34	6.2	50	4.6	20
6.4	32	6.1	49	4.5	17
6.3	30	6.0	48	4.4	14
6.2	28	5.9- 5.8	47	4.3	7
6.1	26	5.7	46	4.2	6
6.0	24	5.6	44	4.1	5
5.9	23	5.5	42	4.0	4
5.8	21	5.4	40	3.9	3
5.7	20	5.3	37	3.8	2
5.6	18	5.2	35	3.7	1
5.5	17	5.1	32	3.6 and Below	Under 1
5.4	15	5.0	28		

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 6 (Contd)

READING	
Gr. Score	Percentile
5.3	14
5.2	13
5.1	11
5.0	10
4.9	9
4.8	7
4.7	6
4.6	5
4.5	4
4.4	3
4.3	2
4.2	1
4.1 and Below	Under 1

SPELLING	
Gr. Score	Percentile
4.9	24
4.8	20
4.7	17
4.6	14
4.5	12
4.4	10
4.3	7
4.2	5
4.1	2
4.0	1
3.9 and Below	Under 1

ARITHMETIC	
Gr. Score	Percentile

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 7

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.6-18.4	99	12.3-12.2	99	13.3-13.2	99
18.3-18.2	98	12.1	98	13.1-13.0	98
18.1	97	12.0	97	12.9	97
18.0-17.9	96	11.9	95	12.8-12.6	96
17.8-17.7	95	11.8	94	12.5-12.3	95
17.6-17.5	94	11.7	93	12.2-11.9	94
17.4-17.3	93	11.6	92	11.8-11.5	93
17.2-17.1	92	11.5	91	11.4-11.3	92
17.0-16.8	91	11.4	90	11.2	91
16.7-16.5	90	11.3	88	11.1-11.0	90
16.4-16.2	89	11.2	87	10.9	89
16.1-15.9	88	11.1	86	10.8-10.7	88
15.9-15.6	87	11.0	85	10.6	87
15.5-15.3	86	10.9	84	10.5-10.4	86
15.2-15.1	85	10.8	83	10.3	85
15.0	84	10.7	82	10.2	84
14.9	83	10.6	80	10.1-10.0	83
14.8	82	10.5	79	9.9	82
14.7	81	10.4	78	9.8- 9.7	81
14.6	79	10.3	77	9.6- 9.5	80
14.5	78	10.2	76	9.4- 9.2	79
14.4-14.3	77	10.1	75	9.1- 8.9	78
14.2-14.1	76	10.0	74	8.8	77
14.0-13.9	75	9.9	73	8.7	75
13.8-13.7	74	9.8	72	8.6	73
13.6-13.5	73	9.7	71	8.5	71
13.4	72	9.6	70	8.4	69
13.3-13.2	71	9.5	68	8.3	66
13.1-13.0	70	9.4	67	8.2	64
12.9	69	9.3- 9.2	66	8.1	62
12.8	68	9.1	65	8.0	60
12.7	67	9.0	64	7.9	57
12.6	66	8.9- 8.8	63	7.8	55
12.5	65	8.7	62	7.7	54
12.4	63	8.6	61	7.6	52
12.3-11.9	62	8.5- 8.4	60	7.5	51
11.8-11.3	61	8.3	59	7.4	50
11.2-10.7	60	8.2	58	7.3	48
10.6-10.2	59	8.1- 8.0	57	7.2	45
10.1	57	7.9	56	7.1	42
10.0	56	7.8	55	7.0	39
9.9	54	7.7	54	6.9	36
9.8	53	7.6	52	6.8	33
9.7	51	7.5	51	6.7	31
9.6	49	7.4	49	6.6	29
9.5	48	7.3	48	6.5	27
9.4	47	7.2	46	6.4	24

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 7 (Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
9.3	46	7.1	44	6.3	22
9.2- 9.1	45	7.0	41	6.2	21
9.0	44	6.9	39	6.1	19
8.9	43	6.8	37	6.0	17
8.8	42	6.7	33	5.9	16
8.7	41	6.6	28	5.8	15
8.6- 8.5	40	6.5	24	5.7	13
8.4	39	6.4	19	5.6	12
8.3	38	6.3	14	5.5	10
8.2- 8.1	37	6.2	13	5.4	8
8.0	34	6.1	11	5.3	7
7.9	32	6.0	10	5.2	5
7.8	30	5.9	8	5.1	2
7.7	28	5.8	7	5.0	1
7.6	26	5.7- 5.6	6	4.9 and Below	Under 1
7.5	24	5.5	5		
7.4	22	5.4	4		
7.3	21	5.3- 5.2	3		
7.2	20	5.1- 5.0	2		
7.1	18	4.9- 4.7	1		
7.0	17	4.6- and Below	Under 1		
6.9	16				
6.8	15				
6.7	14				
6.6	13				
6.5	11				
6.4	10				
6.3	8				
6.2	7				
6.1	5				
6.0- 5.8	3				
5.7- 5.6	2				
5.5- 5.3	1				
5.2 and Below	Under 1				

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 8

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
17.1-16.7	99	13.0-12.9	99	13.1-13.0	99
16.6-16.1	98	12.8	98	12.9	98
16.0-15.6	97	12.7	97	12.8-12.7	97
15.5-15.0	96	12.6-12.5	96	12.6	96
14.9	95	12.4-12.3	95	12.5	94
14.8-14.7	94	12.2-12.1	94	12.4	93
14.6-14.5	93	12.0-11.8	93	12.3	91
14.4-14.3	92	11.7-11.5	92	12.2	89
14.2	91	11.4	91	12.1	88
14.1	90	11.3	90	12.0-11.6	87
14.0-13.9	89	11.2	89	11.5-11.1	86
13.8	88	11.1-11.0	88	11.0-10.6	85
13.7-13.6	87	10.9	86	10.5-10.1	84
13.5	86	10.8	84	10.0	81
13.4-13.3	85	10.7	83	9.9	78
13.2	84	10.6	81	9.8	75
13.1-13.0	83	10.5	80	9.7	72
12.9	82	10.4	77	9.6	68
12.8-12.7	81	10.3	73	9.5	66
12.6-12.5	80	10.2	70	9.4	65
12.4	79	10.1	67	9.3	63
12.3-12.2	78	10.0	64	9.2	61
12.1	77	9.9	61	9.1	60
12.0	76	9.8	57	9.0	59
11.9	75	9.7	54	8.9	58
11.8	74	9.6	51	8.8	57
11.7	73	9.5	48	8.7- 8.6	56
11.6	72	9.4	47	8.5	52
11.5	71	9.3	46	8.4	49
11.4	70	9.2	45	8.3	46
11.3	69	9.1- 9.0	44	8.2	43
11.2	68	8.9	41	8.1	40
11.1	67	8.8	37	8.0	36
11.0	66	8.7	34	7.9	33
10.9	65	8.6	31	7.8	30
10.8	64	8.5	28	7.7	27
10.7	62	8.4	25	7.6	24
10.6	61	8.3	23	7.5	21
10.5	60	8.2	21	7.4	19
10.4	59	8.1	18	7.3	16
10.3	58	8.0	16	7.2	14
10.2	57	7.9	15	7.1	12
10.1	56	7.8	14	7.0	10
10.0	54	7.7	13	6.9	8
9.9	52	7.6- 7.5	12	6.8	6
9.8	51	7.4- 7.3	11	6.7	4
9.7	49	7.2- 7.0	10	6.6	2

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 8 (Contd)

READING	
Gr. Score	Percentile
9.6	47
9.5	46
9.4	44
9.3	42
9.2	41
9.1	40
9.0	39
8.9	38
8.8	37
8.7	36
8.6	33
8.5	30
8.4	28
8.3	25
8.2	21
8.1	19
8.0	16
7.9- 7.7	15
7.6- 7.3	14
7.2- 7.0	13
6.9- 6.6	12
6.5	11
6.4- 6.3	10
6.2- 6.1	9
6.0- 5.9	8
5.8	7
5.7- 5.6	6
5.5- 5.4	5
5.3- 5.2	4
5.1- 5.0	3
4.9	2
4.8- 4.7	1
4.6 and Below	Under 1

SPELLING	
Gr. Score	Percentile
6.9- 6.8	9
6.7- 6.5	8
6.4	6
6.3	4
6.2	3
6.1	1
6.0 and Below	Under 1

ARITHMETIC	
Gr. Score	Percentile
6.5	1
6.4 and Below	Under 1

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 9

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
16.2-16.1	99	13.2-13.1	99	14.7-14.6	99
16.0	98	13.0-12.9	98	14.5-14.4	98
15.9-15.8	97	12.8	97	14.3-14.2	97
15.7	96	12.7	96	14.1-14.0	96
15.6	95	12.6	95	13.9-13.8	95
15.5-15.4	94	12.5	93	13.7-13.6	94
15.3	93	12.4	92	13.5-13.4	93
15.2	92	12.3	91	13.3-13.2	92
15.1-15.0	91	12.2	89	13.1-13.0	91
14.9-14.8	90	12.1	88	12.9-12.8	90
14.7-14.6	89	12.0-11.9	87	12.7-12.6	89
14.5-14.2	88	11.8	86	12.5-12.4	88
14.1-13.8	87	11.7	85	12.3-12.2	87
13.7-13.4	86	11.6	83	12.1-12.0	86
13.3-13.2	85	11.5	81	11.9-11.7	85
13.1	82	11.4	79	11.6-11.5	84
13.0	80	11.3	77	11.4-11.3	83
12.9	77	11.2	75	11.2	82
12.8	74	11.1	73	11.1	81
12.7	71	11.0	70	11.0	80
12.6-12.5	70	10.9	68	10.9	79
12.4	69	10.8	66	10.8	78
12.3-12.2	68	10.7	64	10.7	77
12.1	67	10.6	63	10.6	76
12.0	66	10.5-10.4	62	10.5	75
11.9-11.8	65	10.3	61	10.4	74
11.7	64	10.2	60	10.3-10.2	72
11.6	63	10.1	57	10.1	71
11.5-11.4	62	10.0	53	10.0	69
11.3	61	9.9	50	9.9	68
11.2	60	9.8	46	9.8- 9.7	67
11.1-11.0	59	9.7	42	9.6- 9.5	66
10.9	58	9.6- 9.5	41	9.4- 9.3	65
10.8-10.7	57	9.4	40	9.2- 9.1	64
10.6	56	9.3- 9.2	39	9.0	63
10.5	55	9.1	38	8.9	62
10.4-10.3	54	9.0	36	8.8	61
10.2	53	8.9	35	8.7	60
10.1	51	8.8	33	8.6	59
10.0	49	8.7	32	8.5	58
9.9	47	8.6	30	8.4	57
9.8	45	8.5	28	8.3	56
9.7	42	8.4	27	8.2	52
9.6	40	8.3	25	8.1	49
9.5	38	8.2	23	8.0	47
9.4	36	8.1	21	7.9	44
9.3	34	8.0	20	7.8	41

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 9 (Contd)

READING	
Gr. Score	Percentile
9.2	32
9.1	30
9.0	28
8.9	25
8.8	23
8.7	21
8.6	20
8.5	19
8.4	18
8.3- 8.2	17
8.1	16
8.0	15
7.9	14
7.8	13
7.7	12
7.6	11
7.5	10
7.4- 7.3	9
7.2	8
7.1	7
7.0	6
6.9	5
6.8	4
6.7- 6.6	3
6.5	2
6.4- 6.2	1
6.1 and Below	Under 1

SPELLING	
Gr. Score	Percentile
7.9- 7.8	19
7.7	18
7.6	17
7.5- 7.4	16
7.3	15
7.2	14
7.1	12
7.0	10
6.9	8
6.8	6
6.7	4
6.6	2
6.5	1
6.4 and Below	Under 1

ARITHMETIC	
Gr. Score	Percentile
7.7	39
7.6	36
7.5	34
7.4	31
7.3	29
7.2	26
7.1	24
7.0	21
6.9	20
6.8	18
6.7	17
6.6	15
6.5	14
6.4	12
6.3	10
6.2	9
6.1	8
6.0	6
5.9	5
5.8	4
5.7	2
5.6	1
5.5 and Below	Under 1

END YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 10

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.4	99	14.7-14.4	99	12.7-12.6	99
18.3	98	14.3-13.9	98	12.5	98
18.2	97	13.8-13.6	97	12.4-12.3	97
18.1	96	13.5-13.3	96	12.2	96
18.0	95	13.2-13.1	95	12.1	94
17.9	93	13.0-12.9	94	12.0	93
17.8	92	12.8-12.7	93	11.9	92
17.7	91	12.6	92	11.8	90
17.6	89	12.5	90	11.7	89
17.5	88	12.4	87	11.6	87
17.4	86	12.3	84	11.5	86
17.3	85	12.2	82	11.4	84
17.2	83	12.1	79	11.3	83
17.1	82	12.0	76	11.2-11.1	81
17.0	80	11.9	74	11.0-10.9	80
16.9	79	11.8	72	10.8-10.6	79
16.8	77	11.7	70	10.5-10.4	78
16.7	75	11.6	69	10.3-10.2	77
16.6	74	11.5	67	10.1	74
16.5-16.4	73	11.4	66	10.0	72
16.3-16.1	72	11.3	64	9.9	69
16.0-15.9	71	11.2	62	9.8	66
15.8-15.7	70	11.1	61	9.7- 9.6	62
15.6-15.4	69	11.0	59	9.5	61
15.3-15.2	68	10.9	57	9.4- 9.3	60
15.1-15.0	67	10.8	56	9.2	59
14.9-14.8	66	10.7	54	9.1	57
14.7	65	10.6	53	9.0	55
14.6	64	10.5-10.4	51	8.9	53
14.5	63	10.3-10.2	50	8.8	51
14.4	61	10.1-10.0	49	8.7	48
14.3	60	9.9- 9.8	48	8.6	46
14.2	59	9.7	46	8.5	44
14.1	58	9.6	44	8.4	41
14.0	56	9.5	42	8.3	39
13.9	55	9.4	40	8.2- 8.1	36
13.8	54	9.3	37	8.0	35
13.7	53	9.2	35	7.9	34
13.6	52	9.1	33	7.8- 7.7	33
13.5	50	9.0- 8.9	32	7.6	30
13.4	49	8.8- 8.7	31	7.5	27
13.3	48	8.6- 8.5	30	7.4	24
13.2	47	8.4	29	7.3	22
13.1	45	8.3	27	7.2	18
13.0	44	8.2	25	7.1	17
12.9	42	8.1	22	7.0	15
12.8	40	8.0	19	6.9	14

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 10 (Contd)

READING	
Gr. Score	Percentile
12.7	38
12.6	36
12.5	34
12.4	32
12.3	30
12.2	28
12.1-12.0	25
11.9-11.7	24
11.6-11.4	23
11.3-11.2	22
11.1-10.9	21
10.8-10.7	20
10.6-10.5	19
10.4-10.2	18
10.1-10.0	17
9.9- 9.8	16
9.7- 9.5	15
9.4- 9.0	14
8.9- 8.5	13
8.4- 8.0	12
7.9- 7.6	11
7.5- 7.3	10
7.2- 7.1	9
7.0- 6.9	8
6.8- 6.6	7
6.5- 6.4	6
6.3- 6.2	5
6.1- 6.0	4
5.9- 5.7	3
5.6- 5.5	2
5.4- 5.2	1
5.1 and Below	Under 1

SPELLING	
Gr. Score	Percentile
7.9	17
7.8	14
7.7- 7.6	11
7.5- 7.3	10
7.2- 7.0	9
6.9- 6.6	8
6.5- 6.2	7
6.1- 5.8	6
5.7- 5.5	5
5.4- 5.1	4
5.0- 4.8	3
4.7- 4.5	2
4.4- 4.2	1
4.1 and Below	Under 1

ARITHMETIC	
Gr. Score	Percentile
6.8	12
6.7	11
6.6	9
6.5	8
6.4	6
6.3	5
6.2	3
6.1	1
6.0 and Below	Under 1

END YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 11

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.8-18.7	99	15.2-15.0	99	19.5-19.3	99
18.6	98	14.9-14.8	98	19.2-19.0	98
18.5	97	14.7	97	18.9-18.8	97
18.4	96	14.6-14.5	96	18.7-18.2	96
18.3	94	14.4-14.3	95	18.1-17.0	95
18.2	93	14.2-14.1	94	16.9-15.8	94
18.1	92	14.0-13.9	93	15.7-14.6	93
18.0	91	13.8	92	14.5-14.0	92
17.9	90	13.7	90	13.9	91
17.8	89	13.6	89	13.8-13.7	90
17.7	88	13.5	87	13.6-13.5	89
17.6	87	13.4	86	13.4	88
17.5	86	13.3	84	13.3-13.2	87
17.4	85	13.2	83	13.1	86
17.3-17.2	84	13.1-13.0	81	13.0-12.9	85
17.1-17.0	83	12.9	80	12.8	84
16.9-16.8	82	12.8-12.7	79	12.7-12.6	83
16.7-16.5	81	12.6-12.5	78	12.5-12.4	82
16.4-16.2	80	12.4	77	12.3	81
16.1-15.9	79	12.3	74	12.2	80
15.8-15.5	78	12.2	71	12.1	79
15.4-15.3	77	12.1	68	12.0	78
15.2	75	12.0	65	11.9	76
15.1	72	11.9	62	11.8	75
15.0	70	11.8	58	11.7	74
14.9	67	11.7	55	11.6	72
14.8	64	11.6	54	11.5	71
14.7	62	11.5	53	11.4	70
14.6	59	11.4	52	11.3	69
14.5-14.4	58	11.3	51	11.2-11.1	68
14.3-14.2	57	11.2	50	11.0	67
14.1-14.0	56	11.1	49	10.9	66
13.9-13.8	55	11.0	48	10.8	65
13.7	54	10.9-10.8	47	10.7	64
13.6-13.5	53	10.7-10.6	46	10.6-10.5	63
13.4-13.3	52	10.5-10.4	45	10.4	62
13.2-13.1	51	10.3	44	10.3	61
13.0-12.9	50	10.2-10.1	43	10.2	60
12.8-12.7	49	10.0- 9.9	42	10.1-10.0	59
12.6-12.5	48	9.8- 9.7	41	9.9	58
12.4	47	9.6	40	9.8	57
12.3-12.2	46	9.5	38	9.7	56
12.1-12.0	45	9.4	37	9.6	55
11.9-11.8	44	9.3	35	9.5- 9.4	54
11.7-11.6	43	9.2	34	9.3	53
11.5-11.4	42	9.1	32	9.2	52
11.3-11.2	41	9.0	31	9.1	51

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 11 (Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
11.1-11.0	40	8.9	29	9.0	50
10.9-10.8	39	8.8- 8.7	28	8.9- 8.8	49
10.7-10.6	38	8.6- 8.5	27	8.7	48
10.5-10.4	37	8.4- 8.3	26	8.6	47
10.3	35	8.2	25	8.5	46
10.2	34	8.1	24	8.4- 8.3	45
10.1	33	8.0	23	8.2	44
10.0	32	7.9	22	8.1	43
9.9	31	7.8	21	8.0	42
9.8	30	7.7	20	7.9	41
9.7	29	7.6	19	7.8	40
9.6	28	7.5	18	7.7	38
9.5	27	7.4	17	7.6	37
9.4	26	7.3	16	7.5	35
9.3	25	7.2	15	7.4	33
9.2	24	7.1	14	7.3	32
9.1	23	7.0	13	7.2	30
9.0	22	6.9	12	7.1	29
8.9- 8.8	21	6.8	11	7.0	27
8.7- 8.6	20	6.7- 6.6	10	6.9	25
8.5- 8.4	19	6.5- 6.4	9	6.8	23
8.3- 8.2	18	6.3	8	6.7	20
8.1- 8.0	17	6.2- 6.1	7	6.6	17
7.9	16	6.0	6	6.5	14
7.8- 7.7	15	5.9	4	6.4	11
7.6- 7.5	14	5.8	3	6.3	8
7.4- 7.3	13	5.7	2	6.2	5
7.2- 7.1	12	5.6	1	6.1	2
7.0- 6.9	11	5.5 and Below	Under 1	6.0	1
6.8	10			5.9 and Below	Under 1
6.7	9				
6.6	8				
6.5	7				
6.4	6				
6.3	5				
6.2- 6.1	3				
6.0- 5.9	2				
5.8- 5.7	1				
5.6 and Below	Under 1				

END YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 12

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
18.4	99	16.7-16.2	99	13.4-13.2	99
18.3	98	16.1-15.7	98	13.1-12.9	98
18.2	96	15.6-15.2	97	12.8-12.7	97
18.1	95	15.1-14.7	96	12.6-12.4	96
18.0	93	14.6-14.5	95	12.3	94
17.9	92	14.4-14.2	94	12.2	93
17.8	90	14.1-14.0	93	12.1	91
17.7-17.6	88	13.9-13.7	92	12.0	89
17.5-17.4	87	13.6	91	11.9	88
17.3-17.2	86	13.5	90	11.8	87
17.1-17.0	85	13.4	89	11.7	86
16.9-16.8	84	13.3-13.2	88	11.6-11.5	85
16.7-16.6	83	13.1	87	11.4	84
16.5	82	13.0	86	11.3	82
16.4-16.3	81	12.9	85	11.2	80
16.2	80	12.8-12.7	84	11.1	79
16.1	78	12.6	82	11.0	77
16.0	77	12.5	80	10.9	78
15.9	75	12.4	79	10.8	74
15.8	74	12.3	77	10.7	73
15.7	72	12.2	76	10.6	71
15.6-15.4	70	12.1	74	10.5	70
15.3-15.1	69	12.0	73	10.4	68
15.0-14.7	68	11.9	71	10.3	65
14.6-14.4	67	11.8	69	10.2	63
14.3-14.1	66	11.7	68	10.1	81
14.0	65	11.6	66	10.0	58
13.9-13.8	64	11.5	65	9.9	56
13.7-13.6	63	11.4	63	9.8	53
13.5	62	11.3	61	9.7	51
13.4	61	11.2	60	9.6	48
13.3	60	11.1	57	9.5	46
13.2	59	11.0	54	9.4	44
13.1	58	10.9	51	9.3- 9.2	43
13.0	57	10.8	47	9.1- 8.9	42
12.9	56	10.7	44	8.8- 8.7	41
12.8	55	10.6	42	8.6- 8.4	40
12.7	54	10.5	40	8.3	38
12.6	53	10.4	39	8.2	36
12.5	51	10.3	37	8.1	35
12.4	50	10.2	36	8.0	33
12.3	48	10.1	34	7.9	32
12.2	47	10.0	33	7.8	31
12.1	46	9.9	31	7.7	30
12.0	44	9.8	29	7.6	29
11.9	43	9.7	28	7.5- 7.4	28
11.8	42	9.6	27	7.3	25

END-YEAR .7 NORMS

WRAT - RANDOM SAMPLING

Local Percentiles

GRADE 12 (Contd)

READING		SPELLING		ARITHMETIC	
Gr. Score	Percentile	Gr. Score	Percentile	Gr. Score	Percentile
11.7	41	9.5	26	7.2	21
11.6	39	9.4	25	7.1	18
11.5	38	9.3- 9.2	24	7.0	15
11.4	37	9.1	23	6.9	12
11.3	36	9.0	22	6.8	8
11.2	35	8.9	21	6.7	5
11.1	34	8.8- 8.7	20	6.6	2
11.0	33	8.6	19	6.5	1
10.9	32	8.5	18	6.4 and Below	Under 1
10.8	31	8.4	17		
10.7	29	8.3- 8.2	16		
10.6	28	8.1	15		
10.5-10.4	27	8.0	14		
10.3	26	7.9	13		
10.2	25	7.8- 7.7	12		
10.1	24	7.6	11		
10.0- 9.9	23	7.5	10		
9.8	22	7.4	9		
9.7	21	7.3- 7.2	8		
9.6- 9.5	20	7.1	7		
9.4	19	7.0	5		
9.3	18	6.9	4		
9.2	17	6.8	3		
9.1	16	6.7	2		
9.0	15	6.6	1		
8.9	14	6.5 and Below	Under 1		
8.8	13				
8.7	12				
8.6- 8.5	11				
8.4	10				
8.3- 8.2	9				
8.1- 8.0	8				
7.9- 7.8	7				
7.7- 7.6	6				
7.5- 7.4	5				
7.3	4				
7.2- 7.1	3				
7.0- 6.9	2				
6.8- 6.7	1				
6.6 and Below	Under 1				

APPENDIX

APPENDIX

GEOGRAPHIC CHARACTERISTICS

TOWN	SQUARE MILES OF AREA	MILES OF PAVED STATE ROADS	MILES OF PAVED TOWN ROADS	MILES OF UNIMPROVED ROADS	PRINCIPAL INDUSTRIES
Barkhamsted	38.9	27.50	36.49	1.14	Agriculture
Colebrook	33.5	16.42	29.44	10.94	Agriculture
Hartland	33.7	23.80	22.50	.26	Agriculture
New Hartford	37.4	19.49	52.35	15.38	Agriculture, Small Manufacturing
Norfolk	46.0	18.37	40.14	15.57	Agriculture, Summer Resort
Winchester	36.0	23.16	69.89	12.56	Small Manufacture

The above data obtained from The Connecticut State Highway Department, and/or The Town Clerk, 1st Selectman, or Street Department Superintendent of the involved Towns.

FUNDING DATA FOR PUBLIC EDUCATION IN THE SIX TOWN REGION

TOWN	NET GRAND LIST OCT. 1, 1964	INDEBTEDNESS JAN. 1,1965	POPULATION ESTIMATE	PER PUPIL COST (INC. TRANS.)	PER PUPIL TRANS.COST
Barkhamsted	$ 3,992,810	$ 150,000	1,700	$ 576.11	$ 47.66
Colebrook	4,290,281	10,000	830	524.32	45.60
Hartland	4,206,385	160,000	1,100	529.65	68.36
New Hartford	13,269,250	205,000	3,300	529.65	32.75
Norfolk	7,919,907	180,000	1,900	578.31	33.51
Winchester City of Winsted	39,375,850 28,992,720	1,519,000 1,793,000	11,000	460.17	15.64

Data for this chart from Register and Manual, Connecticut, 1965.

APPENDIX

DISTRIBUTION OF STAFF AND PUPIL POPULATION IN THE SIX TOWNS COVERED

	TOTAL STAFF	ELEMENTARY PUPILS	SECONDARY PUPILS	TOTAL PUPILS
Public School	152	3,132	1,171	4,303
Nonpublic School	54	479	603	1,082
Total	206	3,611	1,774	5,385